

Defense Strategies Institute professional educational forum:

2nd Military Additive Manufacturing Summit

Delivering Innovative & Responsive 3D Printing Solutions to the Warfighter



February 1-2, 2018

Chester H. Ferguson Law Center | Tampa, FL

Program Design & Goal:	DSI's Military Additive Manufacturing Summit is designed as an educational & training "Town Hall" forum, where thought leaders & key policy-makers across Military services, defense agencies, & civilian organizations can come together for actionable discussions & debate. This year's Summit will focus on the technology & innovation needed to further develop additive manufacturing technology & current level of capability in order to deliver greater flexibility to the Warfighter in deployed environments.
	The realization of additive manufacturing technologies provides Military commands & defense agencies the opportunity to integrate advanced 3D Printing capabilities into their supply chains that drastically reduce the manufacturing, maintenance & sustainment costs of strategic resources, with the overall goal of improving & ensuring Warfighter readiness. Discussions at this Summit will also focus on emerging topics in the additive manufacturing community to include the application of cybersecurity strategies for improved protection of the digital thread for additively manufactured military equipment.
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
General Target Audience:	US Military Services, US Military Commands, Military & Government Research Labs, Government Agencies, Academia, & US Technology Solution Providers
	- Innovations in Advanced Additive Manufacturing
	- Logistical Support on Demand: Flattening the Supply Chain in Support of the Warfighter
	- Leveraging Practical Maintenance & Sustainment Solutions to Reduce Operational Costs
	- Improving Mission Readiness through Utilization of AM Technologies
Specific topics	- Utilizing Additive Manufacturing to Reduce Strain on Existing Supply Chains
to be discussed include:	- DoD Perspective on Enhancing the Industrial Base's Additive Manufacturing Capabilities
	- US Navy Perspective Towards Additive Manufacturing: Leveraging the Technology to Enhance the Fleet Durability & Readiness
	- Redefining Manufacturing: Rapid Prototyping to Functional Production
	- Bringing Additive Manufacturing Capabilities to the Point of Need
	- Providing On-Demand Fulfillment & Reducing Dependence on Resupply Missions
	- Improving the Functionality of 3D Printed Parts & Equipment through AM Innovation

	Thursday, February 1, 2018		
7:45 – 8:30	Registration & Light Breakfast Reception Open		
8:30 – 8:40	Moderator Opening Remarks: LTG David Halverson, USA (Ret), CEO, Cypress International Inc. (confirmed)		
8:40 – 9:20	ARL Perspective towards Advancing Material Development for Additive Manufacturing - Latest initiatives to move beyond typical AM materials & advance the technology - Understanding the applications for AM components & the role of material development - Greatest successes & remaining challenges for keeping the army on the cutting edge of AM Larry Holmes, PI for Additive Manufacturing Materials Development, ARL (confirmed)		
9:20 – 10:00	DoD Perspective: Enhancing the Industrial Base's Additive Manufacturing Capabilities - Advancing military supply chain development to reduce time of delivery - Efforts to bridge the gaps between warfighter needs & what industry can deliver - Leveraging public-private partnerships to develop the DoD logistics architecture Tracy Frost, Director, DoD Manufacturing USA Institutes & Acting Director, DoD ManTech (confirmed)		
10:00-10:30	Enabling Additive Manufacturing: Digital Thread Execution, Lessons Learned, and Path Forward -Positioning Digital Thread within the broader constellation of capabilities required to move AM from Lab to Field -Reporting out on the development of a working Digital Thread for Additive Manufacturing -Examining lessons learned, next steps, and key resources for learning more about Digital Thread for Additive Manufacturing Dr. Mark Cotteleer, Research Director, Deloitte Center for Integrated Research (confirmed)		
10:30 – 10:50	Networking Break & Exhibits		
10:50 – 11:30	US Navy Perspective Towards Additive Manufacturing: Leveraging the Technology to Enhance the Fleet Durability & Readiness - Current initiatives to forward deploy AM capabilities throughout the fleet - Efforts to make effective, rapid repairs afloat a viable tool for the modern & future sailor - Understanding US Navy efforts to integrate additive manufacturing into its supply chains CAPT Jason Bridges, USN, OPNAV N415 (confirmed) Representing VADM Dixon Smith, USN, DCNO for Fleet Readiness and Logistics		
11:30 – 12:10	Logistical Support on Demand: Flattening the Supply Chain in Support of the Warfighter - Improving self-sufficiency in tactical environments: moving away from "factory to foxhole" model - Enhancing "sense & respond" smart logistics to increase utility of additive manufacturing - USMC efforts to develop policy to dictate AM's role in developing mission-critical parts MajGen Craig Crenshaw, USMC, Commanding General, MARCORLOGCOM (confirmed)		
12:10-12:20	HP 3D Printing Technology, Today and Into the Future		
12:20 – 1:10	Networking Lunch		
1:10 – 1:50	Increasing Mission Readiness & Durability in Tactical Environments - Exploiting additive manufacturing to reduce strain on existing supply chains - Lessening demand at the point of need by enabling soldiers to produce combat spares - USCENTCOM's vision for the future utility of additive manufacturing MG Edward Dorman, USA, Director, J4 Logistics & Engineering, USCENTCOM (confirmed)		

1:50 – 2:30	Extreme Design: An Adrenalin Rush with Topology Optimization, Metamaterials and Additive Manufacturing Capability
	-Leveraging the exponentially expanding design potential enabled by additive manufacturing -Creating "high-adventure" generative designs by researching, developing and deploying practica metamaterial design tools -Realizing unprecedented designs through innovative AM techniques
	Dr. Ted Blacker, Manager, Simulation Modeling Sciences Department, Sandia National Laboratories (confirmed)
2:30 – 3:00	Networking Break & Exhibits
3:00 – 3:40	Air Force Initiatives to Utilize Additive Manufacturing for Improved Sustainability - AFSC AM strategic roadmap; a vision of collaboration - Shortening supply chains & reducing sustainment costs through AM technology - Executing Air Force supply chain management & depot maintenance missions Lt Col Christopher Blackwell, Director, Air Force Sustainment Innovation Centers, Air Force Sustainment Command (confirmed)
	Martin Williams, 76 th Commodities Maintenance Group, Air Force Sustainment Center (confirmed)
3:40 – 4:20	Getting Additive Manufacturing Capabilities to the Point of Need - Moving DOD toward model-centric additive manufacturing vision - Understanding distributed manufacturing as a means on enhancing warfighter capabilities - Industry partnerships: how the private sector can advance AM proficiency within the Army Wolfgang Peterman, Product Manager, SKO&T, US Army PEO CS&CSS (confirmed) Sam Cooper, Research Analyst, US Army Logistics Innovation Agency (confrimed)
4:20 - 5:00	Achieving Forward Momentum in Ensuring Warfighter Readiness - Reducing downtime & increasing resiliency of critical components in the field - Efforts to lightening logistical burdens through increased efficiency in the acquisition process - REDCOM perspective: shifting capabilities from production hubs to deployed environments Anthony Sebasto, SES, Executive Director, Enterprise & Systems Integration Center, ARDEC, US Army RDECOM (confirmed) Timothy Phillis, Project Officer, Expeditionary Additive Manufacturing, ARDEC, US Army RDECOM (confirmed)
	Friday, February 2, 2018
8:00 – 8:45	Registration & Light Breakfast Reception Open
8:45 – 9:00	Moderator Opening Remarks: LTG David Halverson, USA (Ret), CEO, Cypress International Inc. (confirmed)
9:00 – 9:40	Modernizing Supply Chains through Additive Manufacturing in Support of the Warfighter - DLA's additive manufacturing strategic roadmap - Latest initiatives to integrate additively manufactured parts into DoD logistics network - How AM can be used to keep legacy systems operational & economically viable LTG Darrell Williams, USA, Director, Defense Logistics Agency (confirmed)
9:40-10:10	How to Leverage Metal AM to Improve Weapon System Performance -Real-world examples of lightweight structures and conformal cooling applications -How Metal AM can be used to enhance legacy weapon system performance -The Importance of Hybrid Manufacturing (Metal 3D Printing + Precision CNC Machining) Christian M. Joest, President and Owner, Imperial Machine & Tool Co. (confirmed)

10:10 – 10:50	Additive Manufacturing as a Game-Changing Technology for Naval Warfare
	 Efforts to utilize AM to accelerate capability development & increasing readiness Moving beyond legacy manufacturing methods to enable a new design space
	- Understanding the cost savings implications for the Navy that AM provides
10:50 – 11:00	William Bray, SES, DASN for RDT&E, Department of the Navy (confirmed) SLM Solutions Tech Talk
10.50 - 11.00	
11:00 – 11:20	Networking Break & Exhibits
11:20 – 12:30	Cybersecurity for Additive Manufacturing Panel:
	Additive manufacturing has shown its potential to reduce costs & enable warfighter resilience
	within the operational environment. As the technology is distributed throughout the DoD, one major question has emerged: how do we secure often large & sensitive files? There are proposed
	strategies for securing such sensitive information, as this issue has moved to the forefront of the
	additive manufacturing discussion. Invited panelists will outline their potential options & strategies moving forward to better protect the security of sensitive AM files & information.
	moving forward to better protect the security of sensitive Alvi mes & information.
	- Identifying threats to the additive manufacturing process & implications for the Military
	 Ensuring the reliability & usability of additively manufactured products Are current initiatives to secure military additive manufacturing capabilities enough?
	The durient initiatives to secure minitary additive manufacturing expansitios chough.
	Moderator: Col Howard Marotto, USMC, Lead for Additive Manufacturing & 3D Printing
	 Development & Implementation, HQMC (confirmed) Dr. Jeremy Straub, Assistant Professor, NDSU (confirmed)
	Jeffrey Schrader, Chief Financial Officer, Guardtime (confirmed)
	Keith Stouffer, Project Leader, Cybersecurity for Smart Manufacturing Systems
1	 Engineering Lab, NIST (confirmed) Michael Guinn, Biomedical Engr. & Scientist, USSOCOM SOF AT&L - Acquisition Agility
	(confirmed)
12:30 – 1:20	Networking Lunch
1:20 – 2:00	Redefining Manufacturing: From Rapid Prototyping to Functional Production
	- Understanding the utility of additive manufacturing for maintaining aircraft of varying ages
	 Meeting the challenge of developing consistent, quality materials for additive manufacturing Breaking down the limits & promises of AM technology for the modern Air Force
	Dr. Mark Benedict, Senior Materials Engineer, America Makes Chief Technology Adviser,
	AFRL/RXMS (confirmed)
2:00 - 2:40	Revolutionizing the Navy Supply System through Innovative AM Capabilities
	- Efforts to enable "just in time" production using 3D printers - Initiatives to develop strategies to exploit on-demand acquisition at the point of need
	- Legal considerations regarding the use of AM to streamline the Navy's supply chain
	CAPT Armen Kurdian, USN, Director of Engineering & Product Support, Navy Supply
	Systems Command, Weapon Systems Support (confirmed)
3:00 - 3:40	Meeting the Challenges of Enterprise-Wide Additive Manufacturing
	- AM as a means of improving performance & reducing cost for Air Force sustainment - Realizing the potential of AM technology through a centralized & global network approach
	- Realizing the potential of AM technology through a centralized & global network approach - Efforts to retrain personnel & changing the thinking for Air Force sustainment & maintenance
	Michael Froning, Technical Advisor, Sustainment Technology Transition Branch, Product
	Support Engineering Division, Air Force Life Cycle Management Center (confirmed)
3:40	End of Summit

OPERATING GUIDANCE FOR MILITARY & GOVERNMENT (Federal & State) ATTENDEES:

DSI's Summit is open & complimentary to all U.S. DoD, Federal & State employees & is considered a compliant education & training forum.

Questions, please contact Thomas Engelman: 201.918.3477 | tengelman@dsigroup.org

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