

# ShipTech 2024

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## Wednesday, March 20

6:00 p.m. - 7:00 p.m.	<b>Registration</b>	<b>Crystal Promenade AB</b>
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## Thursday, March 21

7:00 a.m. - 6:00 p.m.	<b>Registration</b>	<b>Crystal Promenade AB</b>
<b>General Session</b>		<b>Crystal Ballroom</b>
8:00 a.m.	<b>Welcome</b> Master Chief Petty Officer Andrew Chupashko, Command Senior Enlisted Leader, Office of Naval Research (confirmed)	
8:05 a.m.	<b>Presentation of Colors</b> Joint Base Charleston Honor Guard	
8:10 a.m.	<b>National Anthem</b> Mr. Tim Macon, Program Manager II, Advanced Technology International (confirmed)	
8:15 a.m.	<b>Keynote Address</b> RDML Kurt Rothenhaus, Chief of Naval Research, Office of Naval Research (confirmed)	
8:45 a.m.	<b>Industry Keynote Address</b> Mr. Kevin Graney, President, General Dynamics Electric Boat (confirmed)	
9:15 a.m.	<b>ManTech</b> Mr. Neil Graf, Navy ManTech Program, Office of Naval Research (confirmed)	
9:30 a.m.	<b>National Shipbuilding Research Program</b> Mr. Colin Dunlop, Program Manager, National Shipbuilding Research Program, NAVSEA 05T2 (confirmed)	
9:45 a.m.	<b>National Shipbuilding Research Program</b> Mr. Logan Jones, Vice-Chair, Executive Control Board / Director of Programs, Jacksonville Ship Repair at BAE Systems, Inc. (confirmed)	
10:00 a.m.	<b>Break / Exhibits</b>	<b>Emerald Ballroom</b>
<b>General Session</b>		<b>Crystal Ballroom</b>
10:30 a.m.	<b>PEO Panel: Accelerating Capabilities to the Warfighter</b> Moderator: Dr. Mark Traband, Deputy Director and Head of the Materials and Manufacturing Office, Penn State University Applied Research Laboratory (confirmed) 10:35 RADM Casey Moton, PEO Aircraft Carriers (confirmed) 10:45 Mr. Matthew Sermon, Executive Director, Program Executive Office Strategic Submarines (confirmed) 10:55 Mr. James Dempsey, PEO Ships (confirmed) 11:05 CAPT Jesse Mink, PEO Integrated Warfare Systems (confirmed) 11:15 Q&A	
12:00 p.m.	<b>Lunch (on your own)</b>	

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Concurrent Technical Sessions		
1:30 p.m.	<b>Maintenance Technical Session</b> <b>Robotics and Automation Technical Session</b> <b>Digital Manufacturing Technical Session 1</b> <b>Advanced Manufacturing Technical Session 1</b>	Crystal AB Crystal C Crystal D Crystal EF
00 p.m.	<b>Break / Exhibits</b>	<b>Emerald Ballroom</b>
3:30 p.m.	<b>Composites Technical Session</b> <b>Robotics and Automation Technical Session 2</b> <b>Advanced Manufacturing Technical Session 2</b> <b>Metalworking Technical Session 1</b>	Crystal AB Crystal C Crystal D Crystal EF
5:00 p.m.	<b>Reception / Exhibits</b>	<b>Emerald Ballroom</b>
6:00 p.m.	<b>Adjourn</b>	

## Friday, March 22

7:00 a.m. - 1:00 p.m.	<b>Registration</b>	Crystal Promenade AB
General Session		Crystal Ballroom
8:00 a.m.	<b>Welcome</b> Master Chief Petty Officer Andrew Chupashko, Command Senior Enlisted Leader, Office of Naval Research (confirmed)	
8:05 a.m.	<b>National Anthem</b> Mr. Tim Macon, Program Manager II, Advanced Technology International (confirmed)	
8:10 a.m.	<b>Submarine Industrial Base</b> Mr. Matthew Sermon, Executive Director, Program Executive Office Strategic Submarines (confirmed)	
8:40 a.m.	<b>NAVSEA Team Ships</b> Mr. James Dempsey, Team Ships Science & Technology Director, NAVSEA (confirmed)	
9:10 a.m.	<b>Industry Keynote Address</b> Mr. Matt Needy, Vice President, Chief Transformation Officer, Huntington Ingalls Industries – Newport News Shipbuilding (confirmed)	

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9:40 a.m.	<b><i>Sustainment Panel: Accelerating Capability to the Warfighter at the Point-of-Need</i></b> Moderator: Mr. Steve McKee, Director of Sustainment Transition Office, ODASD (S&T) Office of Secretary of Defense (confirmed) CAPT Steven Tarr, III, Code 33 MILDEP Office of Naval Research (confirmed) Mr. Kirsten Walkup, Sustainment Chair, National Shipbuilding Research Program / Section Manager - Quality Assurance, Lifecycle Applications & Support, Bath Iron Works (confirmed) Mr. Paul Huang, Navy ManTech Program Officer, Office of Naval Research (confirmed) Mr. Jeff Sauby, Technology Insertion Program Manager, NAVSEA 04 (confirmed)
10:55 a.m.	<b><i>Closing Remarks</i></b> Master Chief Petty Officer Andrew Chupashko, Command Senior Enlisted Leader, Office of Naval Research (confirmed)
11:00 a.m.	<b><i>Break / Exhibits</i></b> Emerald Ballroom
<b><i>Concurrent Technical Sessions</i></b>	
11:30 a.m.	<b><i>Advanced Manufacturing Technical Session 3</i></b> Crystal AB <b><i>Metalworking Technical Session 2</i></b> Crystal C <b><i>Additive Manufacturing Technical Session</i></b> Crystal D <b><i>Digital Manufacturing Technical Session 2</i></b> Crystal EF
1:00 p.m.	<b><i>Adjourn</i></b>

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Thursday, 21 March

## Technical Sessions

	Maintenance Crystal Ballroom - AB	Robotics and Automation 1 Crystal Ballroom - C	Digital Manufacturing 1 Crystal Ballroom - D	Advanced Manufacturing 1 Crystal Ballroom - EF
Session Chair	Chris Ligetti, Penn State Applied Research Laboratory	Jeremy Brougher, Advanced Technology International	Dan Reed, Advanced Technology International	Paul Huang, Office of Naval Research ManTech
1:30 p.m.	Advancing Health Monitoring of Critical Manufacturing Technologies: <b>Dr. Melissa Klingenberg</b> and Aayush Verma, General Dynamics Electric Boat	Producing Savings through Portable Welding Technology: <b>Jeremy Brougher</b> , Advanced Technology International; Derek McKee, General Dynamics Electric Boat	Dynamic Simulation Capability Brought In-House Yard Wide: <b>Bobby Mashburn</b> and Scott Truitt, Advanced Technology International and Kyle Green, Bath Iron Works;	Additively Manufactured Jettison-Hatch Control Manifold for the Submarine Rescue Vehicle: <b>Peter Couotts</b> , Evan West, Corey Dickman, Ted Reutzel, John Phillips, Griffin Jones, and Hunter Rauch; Penn State Applied Research Laboratory
2:00 p.m.	Fiber Optic Distributed Temperature Sensing to Monitor Ships Electrical Assets: <b>Giovanni Tomasi</b> , RSL Fiber Systems LLC; Christopher Nemarich, NAVSEA; Rickey DeLoge, Bath Iron Works	Shipbuilding CoBot Alliance and Portable CoBot Operations: <b>Dr. Stephen Canfield</b> and Jamie Beard, Robotic Technologies of Tennessee; Patrick Cahill, CahillConsulting LLC	Integrate Automated Schedule Optimization and Machine Learning into Shipyard AI: <b>Jamie Breakfield</b> , Ingalls Shipbuilding; Tanner Blackledge, BigBear.ai; Kevan Hutchings, Newport News Shipbuilding; Robert Conley, Advanced Technology International	Tele-Manufacturing - Deploying Remote Automation for Tele-presence Welding: <b>Paul Blomquist</b> and Connie LaMorte, Edison Welding Institute
2:30 p.m.	Utilizing Metal Matrix Composites for at Sea Fatigue Crack Repairs: <b>Brandon Coates</b> and Brian Gordon, Touchstone Research Laboratory; Dr. Daniel Hart, NSWC	Robotic Blasting and Painting of Tank Interiors: <b>Emily Tunila</b> , General Dynamics Electric Boat; Steve Gaschler, Advanced Technology International	Understanding your Digital Twins: <b>Mark Debbink</b> , Newport News Shipbuilding; Eric VanDerHorn and Sharat Valluri, ABS	Automated Targetless Photogrammetry for High Accuracy Metrology: <b>David Rearick</b> , Craig West, Thaddeus Marrara, John Morgan, and Robert Ortman, Penn State Applied Research Laboratory; Dominic Albanese and Michael Raphael, Direct Dimensions, Inc.; Susan Tardif, Bath Iron Works
3:00 p.m.	Break / Exhibits	Break / Exhibits	Break / Exhibits	Break / Exhibits

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Thursday, 21 March

## Technical Sessions

	Composites Crystal Ballroom - AB	Robotics and Automation 2 Crystal Ballroom - C	Advanced Manufacturing 2 Crystal Ballroom - D	Metalworking 1 Crystal Ballroom - EF
Session Chair	Dr. Maureen Foley, NSWCCD Ryan Frankart, Advanced Technology International	Bobby Mashburn, Advanced Technology International	Nancy Porter, Edison Welding Institute	Mark Snider, Advanced Technology International
3:30 p.m.	Thermal Insulating Coatings for Thermal and Anti-sweat Insulation: <b>An Tran</b> and Chris Yoko, Newport News Shipbuilding; Steve Gaschler, Advanced Technology International	Robotic Installation of Submarine Inserts: <b>Chelsea Nugent</b> , Advanced Technology International; Derek McKee, General Dynamics Electric Boat	Potential Life of Boat Ceramic Coating for Submarine Seawater-System Ball Valves: <b>Ryan Romesberg</b> , Penn State Applied Research Laboratory	One-Sided Deck Tie-Down Welding and Inspection: <b>Gary Rosetti</b> , Ingalls Shipbuilding; Robert Conley, Advanced Technology International
4:00 p.m.	S2940-1 High Performance Insulation Materials and Processes: <b>De'Andre Cherry</b> , Advanced Technology International	Mobile Robotic Foundation for Welding Structural Joints: <b>Dan Meath</b> , Gary Rosetti, Ingalls Shipbuilding	Drone Operations for Submarine Hull Inspections: Application and Lessons Learned: <b>Connor McNulty-Ule</b> and Daniel Bard, General Dynamics Electric Boat; Dr. Simon Miller, Sean Krieger, Mike Zugger, Chris Ligetti, Penn State Applied Research Laboratory	Robotic Blending of Large Diameter Internal Piping: <b>Sean McDowell</b> , Advanced Technology International; Maksim Vasilchenko, General Dynamics Electric Boat
4:30 p.m.	Composite Materials Components for Reduced Maintenance and Total Ownership Cost: <b>Dr. Maureen Foley</b> , NSWCCD	Automated Hull Access Cutting and Welding Applications: <b>George Hinerman</b> , Advanced Technology International; Gary Rosetti, Ingalls Shipbuilding	High-Density Ribbon Fiber Optic Cable and Tooling for Shipboard Installations: <b>Jason Farmer</b> , Ingalls Shipbuilding; John Mazurowski and Michael Reilly, Penn State Applied Research Laboratory; Dan Morris KITCO Fiber Optics; Chris Good, NSWCCD	Advancement of Temporary Fitting Attachment Technology: <b>Dan Meath</b> , Advanced Technology International; John Lovezzola, General Dynamics Electric Boat

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Friday, 22 March 2024

## Technical Sessions

	Advanced Manufacturing 3 Crystal Ballroom - AB	Metalworking 2 Crystal Ballroom - C	Additive Manufacturing Crystal Ballroom - D	Digital Manufacturing 2 Crystal Ballroom - EF
Session Chair	Dr. Charles Fisher, NSWCCD	Larry Brown, Edison Welding Institute	Matt Sinfield, NSWCCD	Dr. Carrie Davis, NSWCCD
11:30 a.m.	Application of Printed Sand Mold Technology to Navy-Relevant Castings: <b>Michael Tims</b> and Dr. Juan Valencia, Concurrent Technologies Corporation; Gerald Thiel, University of Northern Iowa	Silicate-free GMAW Electrode and Procedure Technology for High Integrity Multi-pass Ship Panel Joints: <b>Jim Hansen</b> , Joe Getgen, and Dennis Harwig, EWI; Kevin Roossinck, Ingalls Shipbuilding	Invigorating the Additive Manufacturing Industrial Base to Support Submarine Construction: <b>Sean McDowell</b> , Advanced Technology International; Aayush Verma, General Dynamics Electric Boat	Model-Based Standards for Shipbuilding: Governance and Harmonization: <b>Ryan Bounds</b> , Newport News Shipbuilding
12:00 p.m.	Laser Ablation to Improve NNS Preconstruction Primer Removal Operations: <b>Dr. Melissa Klingenberg</b> and Steve Brown, Penn State Applied Research Laboratory; <b>James Brooks</b> and Mike Cunneen, Newport News Shipbuilding	Next Generation Double Electrode GMAW Process for Precision Fillet Welding: <b>Michael Carney</b> , <b>Jim Hansen</b> , Joseph Getgen, and Dennis Harwig, EWI; Kevin Roossinck, Ingalls Shipbuilding	Quality System Framework for NAVSEA and ABS Metal Additive Manufacturing Requirements: <b>Dr. Dennis Harwig</b> and Jason Rausch, EWI; Troy Erb, Wildcat	Automated Forming Outputs for Compound Curvature: <b>Shawn Wilber</b> , Austal USA, and Darren Guillory, SSI USA
12:30 p.m.	Transitioning Material Solutions from R&D to Pilot-Scale Manufacture: A Case Study: <b>Dr. Amberlee Haselhuhn</b> , Nick Johnson, Tanner Olson, and Anthony Koumpias, LIFT	Transforming the Methods to Construct Inner Bottom Assemblies: <b>Dan Meath</b> , Advanced Technology International; Gary Rosetti, Ingalls Shipbuilding	Expeditionary Cold Spray Repair and Additive Manufacturing of Ship and Submarine Components: <b>Dr. Timothy Eden</b> , Anthony Naccarelli, and Jeremy Schreiber, Penn State Applied Research Laboratory; Jeffery Campbell and Daniel Stanley, NAVSEA 05	Implementation of a Shipyard Digital Twin using FlexSim Modeling Software: <b>Patrick Cahill</b> , Russell Knowles, PEO Aircraft Carriers, and Chad Goff, CahillConsulting LLC