

NSRP | National Shipbuilding Research Program

2023 NSRP All Panel Meeting

Charleston, SC

March 28-30, 2023

AGENDA

Tuesday, March 28, 2023

7:00	CONTINENTAL BREAKFAST <i>Ballroom A/B</i>
8:00	GENERAL SESSION <i>Ballroom C</i>
8:00	Welcome and Meeting Overview – Stephen Duca, Executive Director, National Shipbuilding Research Program
8:15	Keynote Address – Emil Casciano, Executive Control Board Chair, Vice President of Nuclear Operations & Fleet Support – GD Electric Boat
8:45	Keynote Address – Ben Canilang, Program Manager, National Shipbuilding Research Program – NAVSEA 05T2
9:15	Keynote Address – Mr. Robert Keane, SES USN, Retired – Ship Design USA
9:45	BREAK
10:00	GENERAL SESSION <i>Ballroom C</i>
10:00	State of the Panel – Electrical Technologies – Jason Farmer, Panel Chair – Ingalls Shipbuilding
10:10	State of the Panel – Ship Design and Material Technologies – Monika Skowronska, Panel Chair – GD NASSCO
10:20	State of the Panel – Sustainment – Kirsten Walkup, Panel Chair – GD Bath Iron Works
10:30	State of the Panel – Planning, Production Processes and Facilities – Patrick Cahill, Acting Panel Chair – Cahill Consulting
10:40	State of the Panel – Surface Preparation and Coatings – Bob Cloutier, Acting Panel Chair – Consultant

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10:50	State of the Panel – Business Technologies – Jamie Breakfield, Panel Chair – Ingalls Shipbuilding			
11:00	State of the Panel – Workforce & Compliance – Maurissa D’Angelo, Acting Panel Chair – D’Angelo Technologies			
11:10	State of the Panel – Ship Warfare Systems Integration – Perry Haymon, Panel Chair – Ingalls Shipbuilding			
11:20	State of the Panel – Welding Technology – Paul Hebert, Panel Chair – Newport News Shipbuilding			
11:40 - 1:00	LUNCH (Provided) & EXPO			
	TECHNICAL TRACKS			
	Design <i>Room 6/7</i>	Build <i>Room 8/9</i>	Sustain <i>Room 10/11</i>	Build <i>Room 12/13</i>
1:15	Utilizing Ship Product Model Information for Corrosion Control and Coatings <i>John Walks, HII-Ingalls</i>	Laser Ablation Surface Preparation and Hazard Evaluation <i>Dr. Melissa Klingenberg, PSU ARL</i>	On-Board Ship 3D Environment <i>Mark Debbink, HII-NNS</i>	Virtual Load Out for Interference Detection* <i>Kyle Green, GD-BIW</i>
1:50	Inner Bottom Transformation* <i>Ron Wilson, HII-Ingalls</i>	Advanced Development of the High Mobility Manufacturing Robot (HMMR) <i>Jamie Beard, RTT</i>	Minimum Data Exchange Standards for a Navy Digital Enterprise <i>Philip Jennings, HII-NNS</i>	Evaluation of Splice-On Connectors/Termini for Shipboard Applications <i>Jason Farmer, HII-Ingalls</i>
2:25	Visual Search Engine* <i>Jamie Breakfield, HII-Ingalls</i>	Portable Welding Robot* <i>Chelsea Nugent, ATI</i>	Alternate Blocking Materials <i>Tim Greeson, DM Consulting</i>	High-Density Ribbon Fiber Optic Cable & Tooling for Shipboard Installations <i>Jason Farmer, HII-Ingalls</i>

*ManTech Project

Presentations and Times Subject to Change

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2:55	BREAK			
	Design Room 6/7	Build Room 8/9	Sustain Room 10/11	Build/Design Room 12/13
3:15	Scaling Up 3D Printed Steel Castings <i>Kolby Pearson, GD-NASSCO</i>	Semi-Auto Gas Tungsten Arc Welding (GTAW)* <i>Dan Reed, ATI</i>	Equipment Sight Site Validation Tool <i>John Walks, HII-Ingalls</i>	Machine Learning and Schedule Optimization* <i>Jamie Breakfield, HII-Ingalls</i>
3:50	Dynamic Rules Based Material Process* <i>Ron Wilson, HII-Ingalls</i>	Next Generation Double Electrode GMAW Processes for Precision Fillet Welding <i>Michael Carney, EWI</i>	Shipbuilding Apprenticeship: A Qualitative Study <i>Scott Christman, GD-BIW</i>	Digital Data for Next Generation Location & Measurement Tools* <i>Bobby Mashburn, ATI</i>
4:25	Custom and Digitized ABS Rules with Executable Knowledge Packets <i>Nathaniel Terre, ABS</i>	Portable Single-Pass Buried Arc Welding of Steel Plate During Ship Erection <i>Jim Hansen, EWI</i>	Digital Twin "TRUST" Verification & Validation Guide <i>Dave Walker, ABS and Mark Debbink, HII-NNS</i>	Digital Model Filtering for Cobot Welding and Cutting Applications <i>Ben Dorris, Next Level Consulting</i>
6:30 – 8:30	RECEPTION & EXPO <i>Ballroom A/B</i>			

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Wednesday, March 29, 2023

7:00	CONTINENTAL BREAKFAST <i>Ballroom A/B</i>
8:00	GENERAL SESSION <i>Ballroom C</i>
8:10	Keynote Address – Mr. Neil Graf, ManTech Program Lead, Office of Naval Research
8:30	Keynote Address – Ms. Kelly Cooper, Program Officer, Sea Warfare and Weapons Department, Office of Naval Research
9:00	Keynote Address – Mr. Tom Perotti, NAVSEA NSRP Program Executive and NAVSEA 05 Executive Director
9:30	Keynote Address – Mr. Matt Sermon, Executive Director, PEO Strategic Submarines – NAVSEA
10:15	BREAK
10:45	ManTech COE Update – Chris Ligetti, Institute for Manufacturing & Sustainment Technology
11:00	ManTech COE Update – John Mazurowski, Electronics Manufacturing Center
11:15	ManTech COE Update – Andrew Trageser, Electro-Optics Center
11:30	ManTech COE Update – Mark Snider, Center for Naval Metalworking
11:45	ManTech COE Update – Bobby Mashburn, Naval Shipbuilding & Advanced Manufacturing
12:00	ManTech COE Update – Ryan Frankart, Composite Manufacturing Technology Center
12:15 – 1:30	LUNCH (provided) and EXPO <i>Ballroom A/B</i>

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	Design <i>Room 6/7</i>	Build <i>Room 8/9</i>	Sustain <i>Room 10/11</i>	Build <i>Room 12/13</i>
1:45	Fire Resistant Watertight Structural Doors <i>John Walks, HII-Ingalls</i>	Dry Dock Block Contact Indicator <i>Tim Greeson, DM Consulting</i>	High Productivity Reduced Emissions Arc Gouging Process <i>Paul Blomquist, EWI</i>	Press Connect Fittings in Construction of US Navy Ships <i>Wendy Greenbaum, GD-BIW</i>
2:20	Mobile Laser Scan to CAD <i>Cody Griffith, HII-NNS</i>	Breakthrough Welding Process for Pipe and Plate <i>Jason Sherman, K-Tig</i>	Robotic Arc Directed Energy Deposition of Large Format Marine Propellers <i>Dennis Harwig, EWI</i>	Shaped Plate* <i>Jeremy Brougher, ATI</i>
2:55	Non-Metallic Material Applications in Shipbuilding Environments* <i>De'Andre J. Cherry, ATI</i>	Deep Hole Drilling* <i>Chance Roman, ATI</i>	Optimized Weld Records <i>Megan Brinker, TruQC</i>	
3:25	BREAK			
3:40	Advanced Diagram Development and Management* <i>Kyle Green, GD-BIW</i>	Cold Cutting Steel* <i>Chance Roman, ATI</i>	Predictive Maintenance for Critical Assets in Shipbuilding <i>Dr. Melissa Klingenberg, Penn State ARL/iMAST</i>	
4:15	Development of a Fast Analysis Solver for Welding Sequence Optimization of Ship Structures <i>Steve Scholler, HII-Ingalls</i>	Tele-welding Shipyard Prototype for Welding (and other) Applications <i>Connie LaMorte, EWI</i>	Minimize Work Content in Production and Maintenance Using Early-stage Structural Design Optimization <i>Tobin McNatt, MAESTRO Marine LLC</i>	
4:45	ADJOURN			

*ManTech

Project Presentations and Times Subject to Change

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Thursday, March 30, 2023

7:00	CONTINENTAL BREAKFAST <i>Room/Areas</i>	
Time	Panel	Meeting Room
8:00 – 3:00	Business Technologies	Room 7
8:00 – 4:30	Electrical Technologies	Room 6
8:00 – 12:30	Planning, Production Processes & Facilities	Room 9
8:00 – 1:00	Ship Design & Material Technologies	Room 10
8:00 – 2:30	Ship Warfare Systems Integration	Room 13
8:00 – 1:00	Surface Preparation & Coatings	Room 8
8:00 – 12:15	Sustainment	Room 11
8:00 – 12:00	Welding Technology	Room 12
8:00 – 12:30	Workforce & Compliance	Room 14

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Business Technologies Panel Meeting – Agenda

2023 NSRP All Panel Meeting – North Charleston, S.C.

North Charleston Convention Center

March 30th, 2023

Room #7

Time	Presentation	Speaker
08:00	Call Meeting to Order Introductions NSRP Program Update	Jamie Breakfield – BT Chair
08:30	Digital Twin – Digital Thread Path Forward	Mark Debbink – HII NNS
09:00	Offline Mobile Ship Navy Repair Operations (RAP)	Micah Waldstein - Oxalis
09:30	Locate Your Digital Assets Using AI-powered Visual Search Technology	Robert Hill - VizSeek
10:00	Break	
10:30	Automated Detailed Planning & Optimization (RA Project)	Rob Parker – SSIUSA
11:00	CUPIX: How a proven AEC Technology Platform is benefiting the Shipbuilding, Ship Sustainment & Ship Survey Industries	Joshua Bibb – CUPIX, Inc.
11:30	Automated Label Plate Generation (Panel Project)	Robert Parker - SSIUSA
12:00	Lunch Break	On Your Own
01:00	Upcoming BT Panel Projects – Equipment Validation Through Scanning	Patrick Roberts – BT Vice Chair
01:30	Using Ship Product Model for Corrosion Control and Coatings (Panel Project)	John Walks – HII Ingalls
02:00	Open Discussion on Future Panel Activities	Jamie Breakfield – BT Chair
02:30	Final Remarks – Adjourn Meeting	Jamie Breakfield – BT Chair

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Electrical Technologies Panel Meeting

Charleston, SC

Thursday, March 30, 2023

Meeting Agenda

**Times listed are Eastern Time Zone*

Time*	Presentation	Speaker
8:00 am	Convene Meeting – Begin Webinar	
8:00 am	Introductions and Welcome	
8:15	Chair Report	Jason Farmer, Panel Chair
8:30	NSRP Update	Jason Farmer, Panel Chair
9:00	Fiber Optic Test Enhancement for Cost Reduction	Chris Pegge, Dan Morris, KITCO Fiber Optics
10:00	Built-In-Test for Fiber Optic Links	John Mazurowski, Penn State ARL
10:30	Break	All
10:45	NAVSEA 05Z3 Update	Chris Nemarich, NAVSEA 05Z33
11:30	Splice-On Connectors and Termini for Shipboard Applications	Jason Farmer
12:00 pm	Lunch	All
12:30	Protocol Gateway Solutions and Network Diagnostics Tools	Joel Austin, Softing Industrial Automation
1:30	Navy Fiber Optic Update	Brandon Nelson, NSWC DD
2:00	Overview of FY23 Panel Projects	Project Leads
3:00	FY24 Panel Project Topic Discussion	All
4:00	For the Good of the Panel/Open Discussion	All
4:20	Action Items & Wrap-Up	Walt Skalniak, Panel Vice-Chair
4:30	Adjourn	

Planning, Production Processes and Facilities (PPPF) Panel Meeting – *Draft Agenda*

2023 NSRP All Panel Meeting – Charleston, S.C.

North Charleston Convention Center

March 30th, 2023

Room #9

Time	Presentation	Speaker
07:00	Continental Breakfast	
08:00	Call the Meeting to Order, Introductions, Panel Business, Call for Chair Nominations	Patrick Cahill – Acting PPPF Chair
08:30	Fit-Up Gear	Kevin Smith - Harbach
09:00	Advanced Elevator Systems	Eric Moran - CDI
09:30	FlexSim Tactical Planning Tool: Using 4D Simulation for Strategic Success	Chad Goff – Goff Consulting
10:00	Coffee Break	
10:30	Blucher Stainless steel push-fit drainage	Alex Green - Blucher
11:00	Dai-Ichi High Frequency, Inc.	Jeff Brunner - DHF
11:30	Atmospheric Plasma – demo immediately after	Glenn Astolfi - APS
12:30	Meeting Adjourned	On Your Own

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Ship Design & Material Technologies Panel Break Out March 30th, 2023

Room #10

Time	Presentation	Speaker
8:00	Convene Meeting	
8:00	Agenda/Tour Logistics	Monika Skowronska, SDMT Panel Chair
8:00	Panel Project Update: Using MELD to Additively Manufacture Flight Deck Tie Downs	Danny Georgiadis, Hepburn and Sons LLC
8:30	NAVSEA Additive Manufacturing Overview	Scott Storms, NAVSEA 05T
8:45	RA Update: Shore-Based Additive Manufacturing in Support Of Military Sealift Command	Gareth Burton, ABS
9:15	Panel Project Update: 3D Printing of Supply Sensitive Parts	Chris Bal, NASSCO
9:30	Panel Project Update: Automated Label Plate Generation	Rob Parker, SSI
10:00	Tour of Detyens Shipyard	
10:15	Meet outside/Bus Leaves for Tour	
1:00	Back to Convention Center	

Ship Warfare Systems Integration Panel Meeting

2023 NSRP All Panel Meeting – Charleston, S.C.

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Room # 13

Time	Presentation	Speaker
8:00 am	Convene Meeting	
8:00 am	Introduction / Panel Chair Welcome / Chair Report	Haymon
8:10 am	NSRP Update	Haymon
8:30 am	Panel Status	Haymon
9:00 am	Past Project Overview	Haymon
10:00 am	SIP/TIP Update	Haymon/ATI
11:00 am	Built-In-Test for Fiber Optic Links	John Mazurowski
12:00 pm	Lunch	All
12:30 pm	Combat Systems Standard Foundations Qualification and Optimization	H.G. Howard
1:30 pm	Performance Improvement for 25Hz DSSM Spring Tray	Mike Talley
2:30 pm	Review Action Items / Closing Remarks	Haymon

Surface Preparation & Coatings Panel Meeting Charleston, SC

Thursday, March 30, 2023, 8:00 AM – 1:00 PM

Room #8

Time	Presentation	Speaker
8:00	Welcome & Introductions	Robert Cloutier Acting Chair, SP&C Panel
8:10	NSRP Program Overview	Robert Cloutier Acting Chair, SP&C Panel
8:30	Surface Preparation & Coatings Panel Update	Robert Cloutier Acting Chair, SP&C Panel
9:00	NAVSEA 05 Surface Preparation and Coatings (SP&C) Technical Warrant Holder (TWH) Update Planning for the TWH's update being virtual	Mark Ingle, TWH, NAVSEA 05
10:00	BREAK	
10:15	Association of Materials Protection & Performance, AMPP – Certification, Education, & Standards	Dave Evans, Director, QP & Coatings Credentialing, AMPP
10:45	<p>Panel Project Updates</p> <ul style="list-style-type: none"> Cleanable Nonskid Deck Covering Ultra-Heat Resistant Primer Zinc Rich Coatings Over High Strength Steel <p>RAP Proposal Updates</p> <ul style="list-style-type: none"> Transition of Power Tool Optimization Implementation of SP-18 “Thorough Spot and Sweep Blast Cleaning for Industrial Coatings Maintenance” in Shipyard Construction 	<p>Leads, Panel Projects Proposals</p> <ul style="list-style-type: none"> GD-Bath Iron Works Brian Thiele Marinette Marine Sean Smith Elzly Technology Corp Eric Shoyer <p>Leads, RAP Projects</p> <ul style="list-style-type: none"> Elzly Technology Corp Eric Shoyer Elzly Technology Corp Eric Shoyer
12:00	MegaRust 2023 Update Planning for the MegaRust update being virtual	Dave Zilber, Chair, MegaRust
12:15	Election Chairperson NSRP SP&C Panel	
	A word from the former Chair	Arcino “Q” Quiero, Jr., Master Shipbuilder
12:45	Election SPC Panel Chair	
1:00	For the Good of the Panel Conclusion & Wrap-Up	Robert Cloutier Acting Chair, SP&C Panel

Sustainment Panel Meeting

Thursday, March 30, 2023

* All times are Eastern Standard Time

Room #11

	Presentation	Speaker
8:00 am	Sustainment Panel Chair Report	Kirsten Walkup, Panel Chair
8:15 am	Panel Project Presentation – Siemens SOIP	Michael Mazzenga, Siemens Government
9:45 am	Technology Tracks – Bloom Cloud Engine	Greg Lawes, point3D
10:15 am	Panel Project Presentation – Sight Validation Tool	John Walks, HII - Ingalls
10:45 am	MANTECH Project – Point Cloud to Solids Conversion Tool	Kyle Green, GD – Bath Iron Works
11:15 am	Panel Project Presentation – Alternate Blocking Materials	Tim Greeson, DM Consulting
11:45 am	Vice Chair Presentation – Collaboration Opportunities, PHNS	Kaipo Crowell, Panel Vice-Chair
12:15 pm	Adjourn	

Welding Technology Panel Meeting

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Room # 12

Time	Presentation	Speaker
8:00 AM	Welcome and Introductions	Paul Hebert
8:15 AM	Panel Chair Report	Paul Hebert
8-30 AM	Semi-Auto GTAW Discussion	Electric Boat
9:00 AM	Multi-factor Monitoring During Laser and Hybrid Laser-Arc Keyhole Welded Steel Butt Joints	Shawn Sutton
9:30 AM	Inspection 4.0	Mike Mohseni, PhD Autometrics
10:00 AM	Break	
10:15 AM	NAVSEA TP/248, Rev 1 – Overview of Robotic Requirements	Jim Thomas NSWC - Carderock
10:45 AM	Presentation on Cobots	Warren Krueger Lincoln Electric
11:15 AM	How to Choose Shipyard Automation Projects with Examples	Tom Richardson Arc Specialties
11:45 AM	Closing Remarks & Discussion	Paul Hebert
12:00 Noon	Adjourn	

Workforce & Compliance Panel Meeting

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Room #14

Time	Presentation	Speaker
8:00 am	Convene Meeting	
8:00 am	Introduction / Panel Chair Welcome / Chair Report	Maurissa D'Angelo
8:10 am	NSRP Update	Maurissa D'Angelo
8:30 am	Panel Project Call Highlights Discussion	Maurissa D'Angelo
8:40 am	Panel and RAP Project Updates	Multiple
	Shipbuilding Apprenticeship: A Qualitative Analysis	
	Feasibility of Standardized OSHA Maritime Management Safety Training	
	<i>Pending – High Productivity Reduced Emissions Arc Gouging Process</i>	
	<i>Pending – Modern Shipbuilding Design Courses 3</i>	
	<i>Pending – Implementation of Press Connect Fittings in Construction of US Navy Ships</i>	
9:30am	When Bad Data Meets Good Intentions: Impact of Poor Data Quality on Welding Emission Factors	Giobbi
10:00 am	SIP/TIP Update	Crowell
10:45	Break	
11:00	Supporting Workforce Through Training	Witt
11:30	Electric Transportation and the Environment	Tallarico
12:00	Panel Project Discussion	All
12:30 pm	Review Action Items / Closing Remarks	Maurissa D'Angelo