

NSRP

National Shipbuilding Research Program

News & Information

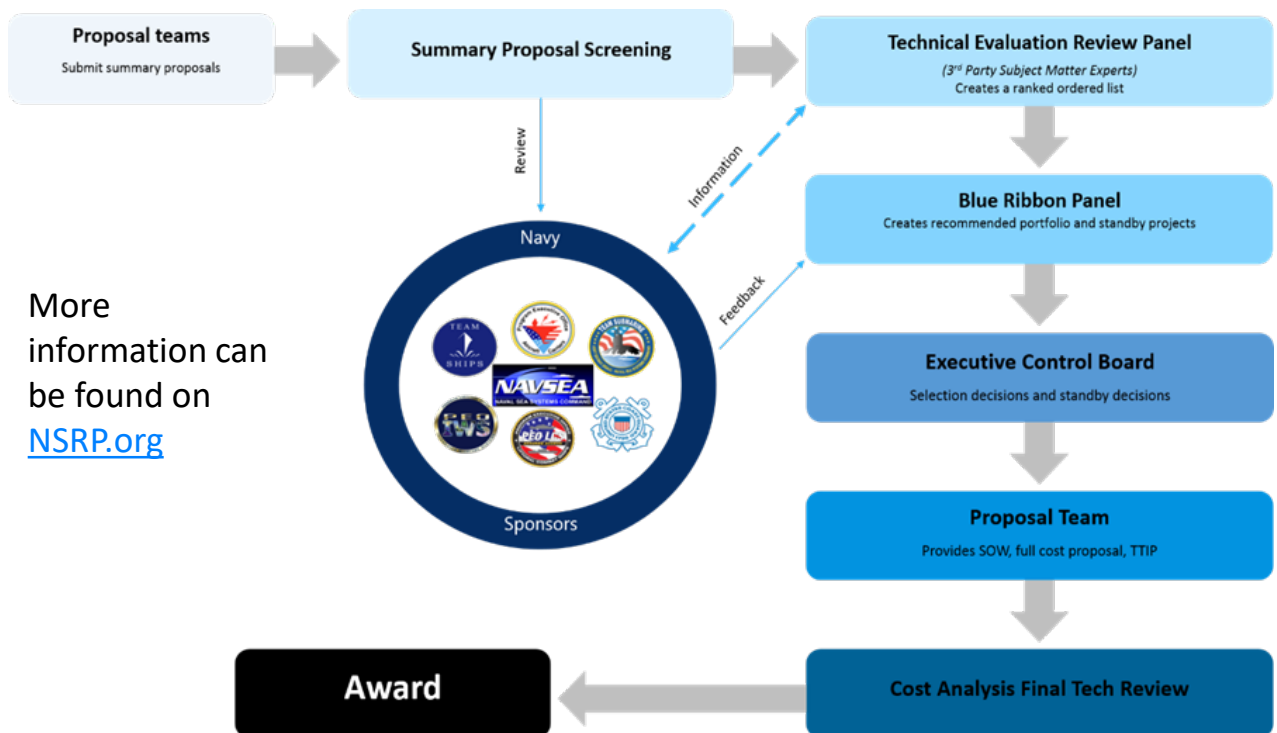
March 2017-July 2017

Research Announcement (RA) 16-01 Solicitation released

On July 6, 2017, the National Shipbuilding Research Program issued [Research Announcement 16-01](#) to solicit proposals for research, development and implementation of best practices in the U.S. Shipbuilding and repair enterprise.

Proposals are due to ATI by September 14, 2017. The Technical Evaluation Review Panel will convene in October to review proposals and provide recommendations to the Blue Ribbon Panel, which meets in November.

The Executive Control Board will meet in December to select projects for award.



More Program News 

First Time Quality of the Dockside Tests and Trials Process Through Deployment of “Quality-At-Source” and Web Based Record Tracking Methods (DockTrials)

This project streamlined the dockside test and trials process through the development and implementation of First-time Quality shipbuilding processes, along with electronic reporting enablers to reduce the rework inherent in the DockTrials Process. This project delivered the following executable and implementable solutions to the U.S. shipbuilding industry:

- A preventive, Quality-at-Source (QAS) program that includes standard process, production check sheets, statistical process control charts, leading indicators, metrics, and analysis tools.
- QAS Master Database; Standard Report Templates
- Detailed Implementation Guide
- Final Report of Results

The benefit of this project was measured in terms of reduced number of discrepancies at In-Process Inspections, in Dockside Test and Trials, as well as at Acceptance Test and Trials. The QAS System which provides an integrated, user-friendly view of all test and inspection information is applicable to all government and commercial shipbuilding projects. This project was scoped to transform the quality function across the shipyard. Therefore, every functional shipbuilding stage of construction was impacted in terms of how quality performance is inspected, evaluated, reported, and controlled. Bollinger Shipyards, the project lead, implemented this project over a multi-hull U.S. Coast Guard shipbuilding program and was able to measure the incremental cost benefit impact as the project progressed. Data gleaned early in the project allowed the team to target improvement of high impact areas, which has led to exceeding the initial Cost Benefit Projections.

The quality performance benefits that have been realized as a direct result of this project are summarized as follows:

- Decreased the number of open deficiencies at Acceptance Trials by 55%, with new reports closing in on a 70% decrease
- 5% Reduction of man-hours associated with defects
- Reduced Test and Trials Cycle Time by 50%

Continued...

DockTrials continued

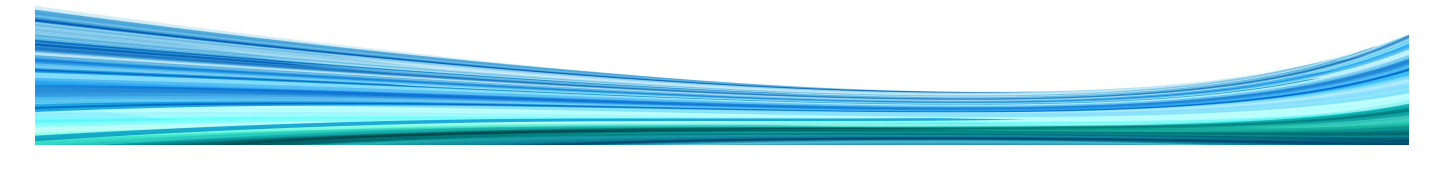
The ROI projected for this project was substantiated through analysis based on actual results. With the cost savings associated with decreased rework countered by the slight increase to the cost of quality, this project demonstrated that a 10-15% cost improvement can be expected with full implementation of on a small/medium shipbuilding project.

“this project demonstrated that a 10-15% cost improvement can be expected with full implementation on a small/medium shipbuilding project.”

The Coast Guard Commandant and Vice Commandant each recognized, in public events, Bollinger’s quality performance in the Fast Response Cutter program, citing defect-free deliveries that were enabled by implementing the results of this project.

In addition, Bollinger was asked to host a tour for representatives from Puget Sound Naval Shipyard (PSNS) to review the Bollinger’s Quality Management System, as well as the implementation of the First Time Quality system. Bollinger has been recognized as a leader in our industry as relates to the ISO 9001 implementation and as such, PSNS was given Bollinger contact information from the external auditor, Platinum Registrars. In addition, PSNS reviewed the project results as part of their due diligence prior to scheduling the visit. The team of seven people from PSNS, led by Mr. Mark Angell, Director Quality Assurance Office (PSNS) as well as Mr. Jeremy McCrimmon, Engineering and Analysis Division Head (PSNS) visited Bollinger from June 6th 2017 through June 16th 2017. They informed us that they were walking away with a much better understanding of the project, and they desired the opportunity for future dialogue to support potential implementation at PSNS.

The project results lend themselves to adoption and implementation by other shipyards, with significantly less resource investment because of the tools and templates already developed through this project.



NSRP All Panel Meeting 2017

The NSRP All Panel Meeting was held in Charleston, South Carolina on Tuesday, March 7th through Thursday, March 9th. There were over 340 participants. This biennial event continues to serve a critical role for the shipbuilding industry and Navy by providing a public forum for industry-wide networking, technology transfer and broad interest discussions.

Agenda Highlights include:

- Keynote addresses by Navy and Industry representatives
- Panel Chair Briefings
- Over 30 NSRP Project Updates
- Project Expo featuring 25 NSRP Industry and NSRP related technologies
- AR/VR Forum



RECENTLY COMPLETED PROJECTS:

[Assisted Decision Support System for Outfitting Work Content Palletization](#)

[Ship Spec Review to Identify Technical Gaps Between Flexible Infrastructure and Ship Spec Requirements](#)

[Variant Reduction for Shipboard Installed Connectors](#)

Click on the name to view the project page on the NSRP website and to request final reports

Thermal Spray Coating of 5xxx Aluminum

This project evaluated the use of thermal sprayed (TS), commercially pure (CP) aluminum (Al) coatings as an effective preventative measure for stress corrosion cracking in aluminum ship structures. Potential application scenarios, technical performance data, cost information, and a roadmap for implementation were generated under this activity. To accomplish the project goals, an Integrated Project Team was formed that included representatives from four shipyards:

- Fincantieri - Marinette Marine Corporation
- General Dynamics – Bath Iron Works
- Huntington Ingalls Industries - Ingalls Shipbuilding
- Huntington Ingalls Industries - Newport News Shipbuilding

The team also included personnel from the Naval Surface Warfare Center Carderock Division and the Naval Sea Systems Command 05P and SEA 21.

Three TS processes were evaluated in this project: Wire Arc, High Velocity Oxy-Fuel (HVOF), and Flame Spray. The following tests were performed: Coating Quality, Distortion, Adhesion – via bend testing and Pneumatic Adhesion Tensile Testing Instrument (PATTI) testing, Coating Integrity, and Susceptibility. For the testing conducted under this effort, 5456-H116 and 5083-H116 material was used. Based on the initial feasibility study and the test results, Wire Arc TS had the best potential for transition to a shipyard environment.

The results of this project demonstrated that TS CP Al has the potential to remediate the propensity for stress corrosion cracking on ship structures. While additional testing and assessments will be necessary to confirm both the technical feasibility and the business case of using this process shipboard, Wire Arc TS has demonstrated its capability of both reducing corrosion and enhancing paint adhesion for the given application.

[Upcoming Events](#)

ARgos Project Demo | August 16 | Arlington, VA | [REGISTER](#)

Planning, Production Processes & Facilities Panel Meeting | Aug 22-23 | Marinette Marine

Welding & Workforce Development Joint Panel Meeting | Sep 12-13 | Tour of EB Quonset Point

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NSRP Extended Teams

March 2017- July 2017

Major Initiative Team Leads

The NSRP Extended Team is comprised of individuals who are either from a U.S. shipyard or a related industry and have both relevant technical experience and interest in a Major Initiative and/or panel.

Ship Design & Material Technologies Lead: David Rice (NNS) Asst Lead: Dan Sfiligoi (NASSCO)	Ship Production Technologies Lead: Gary Zimak (NNS) Asst Lead: Kirk Daniels (EB)	Business Processes & Information Technologies Lead: Mark Debbink (NNS) Asst Lead: Jeff Schaedig (NASSCO)	Infrastructure & Support Lead: Denny Moore (EB) Asst Lead: Ryan Lee (Austal)	MITL-at-large Barry Fallon (NNS) Steve Cogswell (BAE) John Walks (Ingalls) Paul Friedman (BIW) Mimi Vymola (EB)
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Current Major Initiative Team Leads

Structure	
Team Lead	Asst Team Lead
From NSRP member yard	
Relevant shipbuilding experience	

Responsibilities
Provide technical oversight on projects aligned with Major Initiative
Engage in technology transfer activities
Provide input/feedback on Program documents
Stay abreast of shipyard/industry current issues

NSRP Shipyard Delegates

NSRP Shipyard Delegates (NSD) serve as a primary point of contact for NSRP-related information flowing into and out of their shipyards. For those ECB shipyards who are not represented on the MITL slate, a qualified individual is appointed by the ECB representative from that shipyard to serve as NSD.

Newport News	NASSCO	Bollinger	Austal	Bath Iron Works
Alicia D'Aurora	Jeff Schaedig	Dennis Fanguy	Shawn Wilber	Sarah Bramson
Electric Boat	Ingalls	Marinette Marine	BAE Systems SE	Conrad
Mimi Vymola	John Walks	Greg Abbs	Steve Cogswell	Joe Browning

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NSRP Extended Teams

March 2017- July 2017

Panel Chairs

The eleven panels are aligned with the four NSRP Major Initiatives and focus areas of the Strategic Investment Plan, and are the working groups of NSRP.

Ship Design & Material Technologies	
Chair: Alicia D'Aurora (NNS)	Vice Chair: John Malone (Consultant)

Electrical Technologies	
Chair: Jason Farmer (Ingalls)	Vice Chair: Walter Skalniak (Panduit Corp)

Business Technologies	
Chair: Virgel Smith (Ingalls)	Vice Chair: Patrick Roberts (ShipConstructor)

Environmental	
Chair: Kyle Hopf (HII-TS)	Vice Chair: Brian McVey (Ingalls)

Ship Warfare Systems Integration	
Chair: Perry Haymon (Ingalls)	Vice Chair: Vince Stammetti (Alion)

Planning, Production Processes & Facilities	
Chair: Ken Fast (EB)	Vice Chair: Bob Watkins (FMM)

Digital Shipbuilding Committee
Chair: Jamie Breakfield (Ingalls)

Risk Management	
Chair: Thresa Nelson (NNS)	Vice Chair: Yaniv Zagagi (Golder)

Surface Preparation & Coatings	
Chair: Arcino Quiero (NNS)	Vice Chair: Robert Cloutier (BIW)

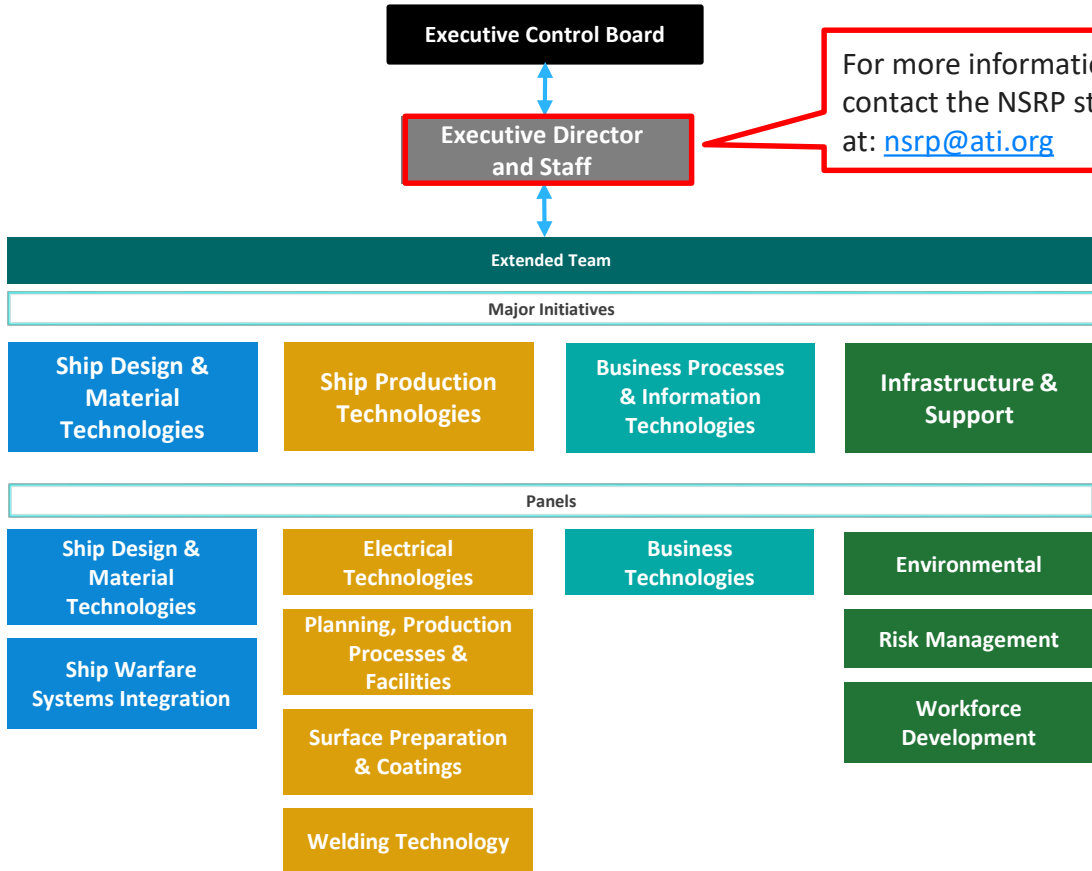
Workers Comp Committee	Safety & Health Committee
Chair: Lauren Seals (EB)	Chair: Frederick Davis (EB)

Welding Technology	
Chair: Lee Kvidahl (Ingalls)	Vice Chair: Mike Sullivan (NASSCO)

Workforce Development	
Chair: Anna Bourdais (Ingalls)	Vice Chair: Ann Franz (NWTC)

Structure
Chair
<ul style="list-style-type: none"> From U.S. Shipyard Relevant industry experience
Vice-Chair
<ul style="list-style-type: none"> Relevant technical and industry experience Preferably from a U.S. Shipyard
Members
Industry and Navy stakeholders

Responsibilities
Oversee panel meetings
Provide technical oversight on panel projects
Assist in the execution of panel project solicitations
Participate in other technology transfer activities
Provide input/feedback on Program documents
Stay abreast of shipyard/industry current issues



For more information, contact the NSRP staff at: nsrp@ati.org

NSRP MISSION

Manage and focus national shipbuilding and ship repair research and development funding on technologies and processes that will reduce the total ownership cost of ships for the U.S. Navy, other national security customers and the commercial sector and develop and leverage best commercial and naval practices to improve the efficiency of the U.S. shipbuilding and ship repair industry.

Provide a collaborative framework to improve shipbuilding-related technical and business processes.