

Press Release

For Immediate Release

National Shipbuilding Research Program Awards \$2.6 million for Panel Project Portfolio

November 18, 2022-- The Executive Control Board of the [National Shipbuilding Research Program](#) (NSRP) has selected 18 panel projects for award, as part of the Program's continuing mission to reduce costs associated with U.S. shipbuilding and ship repair. These new projects, valued at over \$2.6M in government funding, were among those proposed in response to the Panel Project Solicitation issued in June 2022. Abbreviated descriptions follow; prime contractors are listed first and noted in **bold text**:

Cleanable Nonskid Deck Covering

General Dynamics Bath Iron Works

NSRP Investment: \$150K

Duration: 12 Months

Objective:

This project will: 1) Identify typical Navy shipbuilder contracts requirement for nonskid cleanliness; 2) Verify if SiloxoGrip N-9020A Deck Gray MIL-PRF 24667 Type I nonskid can be kept clean through standard care and protection; 3) Verify if SiloxoGrip N-9020A Deck Gray MIL-PRF 24667 Type I nonskid can be cleaned to an acceptable level of cleanliness as defined in goal 1; 4) Develop cleaning methods for nonskid; 5) Summarize alternatives to replacement of non-skid that has lost its slip resistant properties or visibility of safety and visual aid markings that can be prevented through care and protection or cleaning.

High-Density Ribbon Fiber Optic Cable & Tooling for Shipboard Installations

Huntington Ingalls Industries- Ingalls Shipbuilding | Huntington Ingalls Industries- Newport News Shipbuilding | Penn State University - ARL | KITCO Fiber Optics | Naval Surface Warfare Center – Dahlgren Division

NSRP Investment: \$150K

Duration: 12 Months

Objective:

The goal of this project is to evaluate the impact of new, high-density fiber optic cable configurations for U.S. Navy shipboard applications.

The primary objective is to identify process and tooling impacts of using this new technology. Necessary changes and process updates will be identified to support successful transition at the shipyards.

Using MELD to Additively Manufacture Flight Deck Tie Downs

Hepburn and Sons | MELD Manufacturing | Huntington Ingalls In - Ingalls Shipbuilding | Naval Surface Warfare Center – Carderock Division | Naval Surface Warfare Center – Philadelphia Division

NSRP Investment: \$150K

Duration: 6 Months

Objective:

The project goal and objective are to create flight deck tie downs using the AFSD method of AM while maintaining the geometry and function of current tie downs reducing cost and schedule for Navy shipbuilding.

Shipboard Fiber Optic Cables Jackets Performance Enhancements

RSL Fiber Systems | Huntington Ingalls In - Ingalls Shipbuilding | U.S. Navy - SUPSHIP Gulf Coast | ChemPro Technologies LLC

NSRP Investment: \$149K

Duration: 12 Months

Objective:

The project's objective is to lower the Total Ownership Cost (TOC) of shipboard fiber optic systems by decreasing the acquisition costs of fiber optic cables, lower the installation cost by improving the cables' ruggedness, and reduce the cost of repairs and maintenance by reducing the likelihood of in-service damage.

Combat Systems Standard Foundations Qualification and Optimization

Huntington Ingalls Industries - Newport News Shipbuilding | Huntington Ingalls In - Ingalls Shipbuilding

NSRP Investment: \$121K

Duration: 12 Months

Objective:

The overarching goals of the proposed Combat Systems Standard Foundations Qualification and Optimization Project are to reduce schedule pressure, initial equipment installation and technology refresh costs, and initial acquisition and sustainment costs for surface ships across Navy platforms.

GMAW Electrode and Procedure Technology for Silicate-free Weld Deposition

EWI | Huntington Ingalls Industries - Ingalls Shipbuilding | Naval Surface Warfare Center – Carderock Division

NSRP Investment: \$150K

Duration: 12 Months

Objective:

The project goal is to implement silicate-free (SF) gas metal arc welding technology mitigating need for multipass weld inter-pass cleaning.

Feasibility of Standardized OSHA Maritime Management Safety Training

Huntington Ingalls Industries - Newport News Shipbuilding | Huntington Ingalls Industries - Ingalls Shipbuilding | Huntington Ingalls Industries - Mission Technologies Division | Virginia Ship Repair Association

NSRP Investment: \$121K

Duration: 12 Months

Objective:

The objective of this project is to assess current shipbuilding industry supervisor safety training practices and develop a pathway to a nationally recognized and accepted maritime safety supervisor training credential. The goal is to reduce injuries and improve industry emergency response preparedness by providing frontline supervision the skills needed to develop a positive safety culture in their organizations.

Distributed Temperature Sensing (DTS) Integration into Ship Electrical Plant Monitoring and Controls for Conditions Based Maintenance

RSL Fiber Systems LLC | Penn State University - ARL | Luna Inc/Lios
| General Dynamics Bath Iron Works | NAVSEA 05Z33 | NSWCPCD Code 44

NSRP Investment: \$150K

Duration: 12 Months

Objective:

The project will concentrate on the data for electrical systems and specifically MV panels however it will be expandable to other uses of the DTS technology such as machinery health monitoring, fire detection, and temperature monitoring of living spaces and storage areas, further reducing delivered ship operations and sustainment costs.

Breakthrough Welding Process for Pipe and Plate

Keyhole TIG USA | Fincantieri Marinette Marine | EWI

NSRP Investment: \$150K | **Industry Investment:** \$30K

Duration: 12 Months

Objective:

The objectives of the project are:

- 1.) Develop mechanized K-TIG methods for candidate applications
- 2.) Demonstrate that the developed K-TIG methods meet identified NAVSEA TECH PUB 248 procedure qualification test requirements, and
- 3.) Support implementation at the participating shipyard.

Ultra Heat Resistant Primer

Fincantieri Marinette Marine | Northern Coatings and Chemical Inc | Elinor Coatings LLC

NSRP Investment: \$148K

Duration: 12 Months

Objective:

The goal of this project is intended to eliminate burned paint installation through development and application of advance coatings. The Team proposes to work with relevant industry professionals and material manufacturers to develop and study an Ultra Heat Resistant Primer. It will be performed in conjunction with Northern Coating & Chemical of Menominee, MI.

Zinc-Rich Coatings Over High Strength Steel

Elzly Technologies | Huntington Ingalls Industries - Newport News

Shipbuilding

NSRP Investment: \$150K

Duration: 12 Months

Objective:

The goal of this project is to:

- Establish a credible testing protocol to assess base metal, heat-affected zone (HAZ), and deposited filler metal susceptibility to reduced properties associated with Zn-rich coatings. This project will not address other methods of zinc application like galvanizing or electroplating.
- Generate data to understand the relative impacts of Zn-rich coatings on high strength steel susceptibility to property degradation associated with phenomena such as hydrogen embrittlement. An understanding of the potential for future property degradation resulting from previously removed Zn-rich coatings will be sought.
- Should testing yield promising results, a list of alternative coating systems and appropriate areas of application will be generated to promote the advantages of adopting Zn-rich coatings.
- Based on project results, provide recommendations for shipyard and Navy consideration.

Performance Improvement for 25Hz DSSM Spring Tray

Huntington Ingalls Industries - Newport News Shipbuilding | NTS |

NAVSEA 05P1

NSRP Investment: \$144K | **Industry Investment:** \$5K

Duration: 12 Months

Objective:

The objectives of this project are to:

- Evaluate DSSM performance improvements with custom machined fitted washers and shims
- Produce drawings for latch adjustment mechanism
- Fabricate, install, and test latch adjustment mechanism if funding is available
- Document performance improvements

Dry Dock Block Contact Indicator

DM Consulting | Austal USA | Naval Station San Diego

NSRP Investment: \$88K

Duration: 12 Months

Objective:

The purpose of this project is to design and test a block contact detection system. Use of the system is intended to reduce or eliminate the need for divers to verify contact between the blocks and the vessel being lifted.

Outlining a Development Plan for the Auto-Identification of Cobot Welding & Cutting Applications within a Digital Ship Model

Fincantieri Marinette Marine | Halter Marine | Next Level Consulting | ShipConstructor USA

NSRP Investment: \$150K | **Industry Investment:** \$48K

Duration: 12 Months

Objective:

This project will provide insight so that shipbuilders (and software vendors to the industry) can align, filter and manage digital ship model information that allows designers and planners to do their part in accelerating the adoption of cobots. Without digital filtering tools, cobot automation adoption and the benefits of cobot cost reductions to the industry will likely remain limited and sluggish.

Questions? Contact the NSRP Team at: nsrp@ati.org or visit the NSRP website at: www.nsrp.org