

## Press Release

For Immediate Release

### National Shipbuilding Research Program Selects \$2.55 million for Panel Project Portfolio

**November 6, 2023**-- The Executive Control Board of the [National Shipbuilding Research Program](#) (NSRP) has selected 17 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 \$2.55M in government funding, were among those proposed in response to the Panel Project Solicitation issued in June 2023. Abbreviated descriptions follow; prime contractors are listed first and noted in **bold text**:

#### Optimized Weld Records Phase Two

**TRU Solutions LLC** | HII- Ingalls Shipbuilding | EWI | NAVSEA 05P2

**NSRP Investment:** \$150K

**Duration:** 12 Months

**Objective:**

TRU Solutions will adapt their current software to meet NAVSEA weld requirements, while proving system functionality, savings and data availability. TRU plans to develop flagging and tracking for weld certifications and qualifications, seamless integration for the UT gauge, Weld Procedure Specifications form and others, management by exception for business intelligence and possible database integration.

#### Lighting on Naval Ships DOD-HDBK-289(SH) Modernization Support Effort

**RSL Fiber Systems Inc** | HII - Ingalls Shipbuilding | NAVSEA 05Z33 | HII - Newport News Shipbuilding | Austal USA | Penn State University - ARL | Phoenix Lighting | Signal Mate

**NSRP Investment:** \$150K

**Duration:** 12 Months

**Objective:**

The objective of this effort is to provide support to NAVSEA 05Z33 from an industry team comprised of multiple lighting manufacturers, shipyards, and Navy entities to help initiate and expedite the revision process and accelerate the modernization of the U.S. Navy lighting.

## Fiber Optic Test Enhancement Follow-On 2

**KITCO Fiber Optics** | HII - Ingalls Shipbuilding | HII - Newport News Shipbuilding | Naval Surface Warfare Center – Carderock Division | Penn State University - ARL | EXFO North America

**NSRP Investment:** \$150K

**Duration:** 12 Months

**Objective:**

Primary investigation will take place to verify that the launch conditions of the Optical Time Domain Reflectometer test unit can be used in place of the Optical Loss Test Set and Optical Return Loss Meter test units to perform multiple required tests at the same time. Tests that are currently performed separately will be combined and will further result in the elimination of several tests that are currently performed during various separate stages of the construction process.

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## Fast Docking System Study

**DM Consulting** | Fincantieri Marinette Marine | Naval Base San Diego Graving Dock

**NSRP Investment:** \$150K

**Duration:** 12 Months

**Objective:**

The project goal is to analyze the effectiveness of a modern drydocking technology; Syncrolift's Fast Docking systems. These systems are hydraulically operated ship supports that replace side blocks. This project will provide a comprehensive analysis of these systems along with pragmatic recommendations that hold potential for implementation in shipyards throughout the United States, catering to both commercial and government vessels.

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## Plug-and-Play Robotics

**EWI** | HII - Ingalls Shipbuilding | Naval Surface Warfare Center - Carderock Division | Robotic Technologies of Tennessee

**NSRP Investment:** \$150K

**Duration:** 12 Months

**Objective:**

The objectives of the project are to reduce the complexity currently required to setup a cobot to work with welding and metal working equipment via a simplified interface that allows the use of the equipment's existing settings and procedures.

## Navy Standard Bookend Fixtures for Shock Testing

**Gibbs & Cox (Leidos)** | HII - Ingalls Shipbuilding | NAVSEA 05P1

**NSRP Investment:** \$150K

**Duration:** 12 Months

**Objective:**

The goal of this project is to create up to four, qualified Navy Standard Bookend Shock Test Fixtures for a range of component weights and sizes to be used on Lightweight and Medium-weight Shock Test Machines. The objective is to reduce cost and schedule associated with test fixture development, for all shock hardened, US Navy ships.

## Data-Centric Detail Design and Drafting Process Improvements

**Hawk Technologies** | HII - Ingalls Shipbuilding | Fincantieri Marinette Marine | 4th Mogul

**NSRP Investment:** \$150K

**Duration:** 12 Months

**Objective:**

Subjective goals of this project: 1) Provide validated proof that a data-centric approach to continuous improvement will improve all aspects of the design/drafting process with favorable ROI. 2) Establish industry metrics and benchmarks for design/drafting through the compilation of a subset of shared “public” data from multiple collaborating shipyards.

## Industry Recommended Framework and Implementation Roadmap for Delivering Cyber-Ready Ships

**American Bureau of Shipping (ABS)** | General Dynamics NASSCO | NAVSEA 05D | General Dynamics Bath Iron Works | USCG CG-9 | NOAA Office of Marine and Aviation Operations

**NSRP Investment:** \$150K

**Duration:** 12 Months

**Objective:**

The goal will be to produce a document that Government fleet owners/operators can reference in their specifications for future ships so that shipyards have clarity in requirements for delivering Cyber-Ready ships.

## Testing and Analysis of Anti-Biofouling Coatings

**Hepburn and Sons** | HII - Newport News Shipbuilding | BIOTERPHASE | Scale Materials | Coval Technologies | Navy Research Laboratory (NRL)

**NSRP Investment:** \$150K

**Duration:** 12 Months

**Objective:**

Test and analyze three anti-foulant (AF) coatings after immersion and exposure to seawater in a warm, highly organic, seawater environment using NRL’s facilities and barge in Miami and Key West, FL.

## Enhanced Primers for Welding Operations

**Elzly Technology** | HII - Newport News Shipbuilding | Fincantieri Marinette Marine

**NSRP Investment:** \$150K

**Duration:** 12 Months

**Objective:**

The project will work with a stakeholder team to: 1) Identify weld through primer coatings suitable for shipyard operations. 2) Evaluate weld through primers for shipyard use.

## Verification of Fire Protection of Shipboard Electric Cables Using Intumescent Coating

**Hepburn and Sons** | Fincantieri Marinette Marine | STI | Naval Surface Warfare Center - Carderock Division | Southwest Research Institute

**NSRP Investment:** \$150K

**Duration:** 6 Months

**Objective:**

The project goal and objective are to test and verify the domestic source, STI's intumescent Micro-scale Combustion Calorimetry, through testing at NSWC CD and SWRI.

## Enhanced 3D Mapping Capability of High-Fidelity Colorized Point Cloud

**Cleo Robotics** | General Dynamics Bath Iron Works

**NSRP Investment:** \$150K

**Duration:** 12 Months

**Objective:**

The project goal is to enhance the existing 3D mapping capability to allow the drone to more effectively capture and map navy shipboard conditions by accessing areas inaccessible by common 3D scanning technology.

## MCI Alternate Deck Wear Surface Evaluation and Qualification

**HII - Newport News Shipbuilding** | HII - Ingalls Shipbuilding | Milwaukee Composites Inc. | NAVSEA 05P2

**NSRP Investment:** \$150K

**Duration:** 12 Months

**Objective:**

The project goals are to develop an approved alternative electrical grade deck covering that is less costly than the current Electric Grade Sheet utilized in electronic spaces. The project will also target weight reduction, since Combat System spaces are often located higher in the ship where weight constraints are more critical.

## Handheld Laser Welding for Cabinets and Enclosures

**Schweitzer Engineering Laboratories Inc** | HII - Newport News Shipbuilding | General Dynamics Electric Boat

**NSRP Investment:** \$150K

**Duration:** 12 Months

**Objective:**

The goal of this project is to experimentally determine handheld laser welding procedures capable of meeting the requirements of TP-248/278.

## Simplified Precision Welding Technique

**EWI** | HII - Ingalls Shipbuilding | Naval Surface Warfare Center - Carderock Division

**NSRP Investment:** \$146K

**Duration:** 12 Months

**Objective:**

The project goal is to implement semi-automatic Gas Tungsten Arc Welding tacking and corrosion pit and scar repair technology.

## Evaluation of Newly Developed Cooling Suits for Improved Worker Efficiency

**General Dynamics Electric Boat**

**NSRP Investment:** \$150K

**Duration:** 12 Months

**Objective:**

This project aims to evaluate the usability and effectiveness of new cooling suits developed under SBIR as well as commercially available products. This project will perform an initial market survey of the existing products given inputs of all Shipyard Stakeholders and perform an analysis of down selected subset of suits.

## Body Cooling Technology Study for Shipyard Worker Safety and Performance

**HII - Ingalls Shipbuilding** | HII - Newport News Shipbuilding | General Dynamics Bath Iron Works

**NSRP Investment:** \$150K

**Duration:** 12 Months

**Objective:**

Explore commercially available and high TRL developmental body cooling technologies. Select various options based on differing cooling technologies and methods: Evaporative cooling, convective cooling, conductive cooling, phase change materials (PCMs), microencapsulated PCM fabrics, refrigerant tube cooling, wicking fabrics, etc. Pilot test several options and assess key parameters for heat relief, comfort, ergonomics, and health safety. Report on each parameter and overall effectiveness. Document pricing and accessibility. Draft potential implementation plans and costs. Assess financial feasibility to make body cooling widely available to shipbuilders. Estimate risk reduction.

**Questions?** Contact the NSRP Team at: [nsrp@ati.org](mailto:nsrp@ati.org) or visit the NSRP website at: [www.nsrp.org](http://www.nsrp.org)

