

NSRP

Press Release

For Immediate Release

Executive Control Board awards \$2.4M for R&D Project Portfolio

October 6, 2017 -- The Executive Control Board of the National Shipbuilding Research Program (NSRP) has selected 16 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 \$2.4M, were among those proposed in response to the Panel Project Solicitation, issued in April 2017.

Abbreviated descriptions follow:

Low Voltage Shipboard Lighting Feasibility Study

Ingalls Shipbuilding | Newport News Shipbuilding | Austal USA, | Bath Iron Works | NAVSEA

NSRP Investment: \$150K

Duration: 12 Months

Objective

This project seeks to decrease installation and operation costs associated with shipboard lighting systems by evaluation of low voltage (28V DC) lighting system hardware & power system architectures.

Higher Quality, Reduced Cost Aluminum Welding

EWI | Austal USA | BAE Systems | Ingalls Shipbuilding | Vigor Industrial

NSRP Investment: \$150K

Duration: 12 Months

Objective

The goal of the proposed project is to reduce the cost and time associated with aluminum welder performance qualification, and to reduce shielding gas costs for shipyards by identifying procedures for producing welder performance qualification test plates and production weldments using advanced GMAW-P power sources and argon that consistently meet the radiographic testing requirements.

Develop Battery-Powered Drawn Arc Stud Welding System

Nelson Stud Welding | Newport News Shipbuilding | Ingalls Shipbuilding

NSRP Investment: \$150K

Duration: 12 Months

Objective

Develop working prototypes of a portable, battery-powered drawn arc stud welder capable of welding ½" diameter studs. Provide shipyards a cordless portable stud welder which is capable of welding a majority of studs used in shipbuilding.



Evaluation and Control of Beryllium Exposure in Shipyards

BSI/Atrium Environmental Health & Safety Services, LLC | Newport News Shipbuilding | Bath Iron Works | Norfolk Naval Shipyard

NSRP Investment: \$150K

Duration: 12 Months

Objective

Summarize current uses of Be-containing products in US shipyard work. Collect and analyze existing representative occupational exposure data for comparable work with Be-containing products.

Semi-Automatic GMAW-P Welding of Copper-Nickel Pipe Joints

EWI | HII-Ingalls Shipbuilding | Bollinger Shipyards | NASSCO | Vigor Industrial

NSRP Investment: \$150K

Duration: 12 Months

Objective

Develop the necessary parameter sets to allow Semi-Automatic GMAW-P of pipe joints in all-positions, to address this greater population of weld joints encountered in shipbuilding.

ShipScan

Ship Architects, Inc | Bollinger Shipyards | Austal USA | BAE Systems SE | Conrad Industries | SSI USA | DotProduct

NSRP Investment: \$150K

Duration: 12 Months

Objective:

This project aims to improve the current handheld 3D scanning process in shipbuilding and to document workflows that can be integrated into business and engineering processes easily and inexpensively.

Using Fire Retardant Gels During Hotwork

BAE Systems SE | NAVSEA 04X3 | NAVSEA 04RE | Mid-Atlantic Regional Maintenance Center | Newport News Shipbuilding

NSRP Investment: \$130K

Duration: 12 Months

Objective:

Evaluate the use of commercially available fire retardant gels in multiple applications to determine suitability for use in ship construction and ship repair during various hotwork operations.

Thermal Insulating Coatings for (TTP492) Achieving R-Value using Aerogel Filled Coatings for Naval Shipyards Applications

Electric Boat | Bath Iron Works | Newport News Shipbuilding | BAE Systems SE | Elzly Technology | Righter Group | Tnemec Company

NSRP Investment: \$150K

Duration: 12 Months

Objective

Introduce Aerogel filled thermal insulating coatings for sub and shipboard applications. Replace current vermiculite or anti-condensation/anti-sweat applications. Improve existing processes, altering dew point outcomes on steel substrates, reducing/eliminating condensation at greater application speed and elevated thicknesses (150-200 mils per coat).

Application Analysis of Equalizing Load Lifting Bars to Reduce Distortion Control Backup Structure when Lifting and Turning Thin Plate Blocks

NASSCO

NSRP Investment: \$150K

Duration: 12 Months

Objective

The objective is to determine the feasibility and cost savings of reducing or eliminating temporary bracing, additional back up structure, and deck and bulkhead inserts with the use of equalizing loader bars for lifting and turning thin plate blocks and grand blocks as compared to traditional lifting arrangements.

ASTM F1387 Testing for Mechanically Attached Fittings

Ingalls Shipbuilding | Bath Iron Works

NSRP Investment: \$150K

Duration: 12 Months

Objective

To define the test requirements necessary to obtain NAVSEA approval of MAFs, and to conduct shock testing of MAFs to better define the scope of follow-on testing necessary for NAVSEA approval.

Evaluation of Plasma Beam Technology for Coating Removal and Surface Preparation

Atmospheric Plasma Solutions | Electric Boat | Bath Iron Works | BAE Systems SE | Newport News Shipbuilding | NASSCO | NSWC | SURFMEPP | Corrosion Probe | Righter Group | Elzly Technology

NSRP Investment: \$150K

Duration: 12 Months

Objective

Optimize the plasma beam coating removal system to deliver a product that is most effective for the Navy. Conduct shipyard demonstrations and laboratory/field tests that will discover cost effective uses and elicit feedback from the potential users of the system.

Evaluation of Efficacy of Self-Sealing Cable Transit Devices for Aluminum Bulkheads and Decks in Non-Watertight Boundaries

STI Marine | Fincantieri Marinette Marine | Austal USA | NAVSEA

NSRP Investment: \$150K

Duration: 12 Months

Objective:

This project plans to demonstrate that self-sealing cable transits meet or exceed safety requirements by ensuring that cable transits in fire-rated bulkheads or decks remain properly sealed regardless of whether the cabling was changed.

Horizontal Access Lifting System

Concurrent Technologies Corporation | Electric Boat | Bath Iron Works

NSRP Investment: \$149K

Duration: 12 Months

Objective

Develop concepts to improve horizontal material handling placement capabilities for outfitting subs and surface ships. Reduce labor, schedule, and potential injuries associated with non-value added labor. Facilitate recommendations for developing the concepts into commercially available equipment that can be procured by any shipyard and other end user.

Advanced Concept Designs for Isolation Systems Supporting CWS Modernization

Newport News Shipbuilding | Ingalls Shipbuilding | Electric Boat | Bath Iron Works | Bollinger | NASSCO

NSRP Investment: \$150K

Duration: 12 Months

Objective

Examine current and potential implementations of shock and vibe isolation systems for CWS on ships and submarines. Develop advance concept designs for a Distributed Isolated False Deck to create a 'common' environment for equipment and reduce installation time.

Combat Systems Standard Foundations

Newport News Shipbuilding | Ingalls Shipbuilding | Bath Iron Works | NASSCO | Bollinger Shipyards

NSRP Investment: \$149K

Duration: 12 Months

Objective

The goal of this project is to reduce combat systems installation time and costs associated with initial equipment installation, equipment up-grades, and late technology insertion.



Cost Model-Based Network Design and Testbed Performance Analysis: Demo of Optical Network Paradigm for Ships' Flexible Communications Infrastructure

Penn State Electro-Optics Center | Vencore Labs | Lockheed Martin MST | Ingalls Shipbuilding

NSRP Investment: 150K

Duration: 12 Months

Objective

Reduce shipboard network acquisition and ownership cost, and increase commonality to support flexible infrastructure. This project builds on the 2016 Optical Network Paradigm project through application of the previously built cost model and validation of performance through a testbed demonstration.

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

