



NATIONAL SHIPBUILDING RESEARCH PROGRAM
ADVANCED SHIPBUILDING ENTERPRISE

Reducing Naval Ship Construction & Repair Costs

Program Update

Product Design & Material Technologies
Panel Meeting

Biloxi, MS

March 10, 2010

Program Operations

- New NAVSEA Program Mgr: Connie Bowling
- \$15M/yr funding for FY10 and FY11 – sources:
 - PEOs (Ships, Subs, Carriers)
 - NAVSEA 05
 - FY10 Defense Appropriations Bill
- New Panel Project Portfolio selected at January ECB meeting
- RA Project selection this April!



Research Announcement 08-01

- Proposals submitted 12 Feb
- Technical Evaluation Review Panel met at ATI 1 – 5 Mar; submitted their recommendations to the Blue Ribbon Panel who will meet 29 Apr – 2 Mar
- Project Selection 28-29 Apr



New Panel Projects

2010 Selected Panel Projects			
Project	Participants	Panel	NSRP Funding
Analysis of Injuries & Fatalities in Shipbuilding Industry Associated with "Struck By", "Struck Against" or "Caught In" Incidents	Atlantic Marine , Electric Boat, NASSCO, Norfolk Naval Shipyard, NGSB-NN, NGSB-GC, Teresa Preston	FTRM	\$23,000
Solid-State Ship Lighting System Evaluation	NGSB-GC , Omni Technologies, LightPod, Integrated Illuminated Systems	Electrical	\$95,000
Fiber Optic Tester with Go/No-Go Acceptance Criteria	NGSB-NN , NGSB-GC, Bollinger, Bath Iron Works, Kitco, JDSU, NSWC-Dahlgren	Electrical	\$100,000
Cable Tag Reduction	BIW , NASSCO, NGSB-NN, NGSB-GC	Electrical	\$100,000
Implementation of Recently Generated Emission Factors at the Federal, State and Local Level	Concurrent Technologies Corporation , BAE Systems San Diego Ship Repair	Env.	\$98,956
Swage Panel Analysis Verification	NASSCO , Noran Engineering, BMT Scientific Marine Services	PDMT	\$98,670
A Study to Determine an Alternative Coatings System Environment Recorder	NGSB-NN	SPC	\$92,400
Enterprise Resource Planning (ERP) Integration with CAD	VT Halter Marine , NGSB - Gulf Coast, ShipConstructor USA	Business	\$99,600
Study to Determine the Level of Salt Mitigation as related to the Accuracy of the Measurement and Cost Benefits	Lydia Frenzel , NASSCO, Atlantic Marine	SPC	\$79,600
Constructing a Prototype Man-Portable Friction Stir Welding System	Engineering Consulting Services , Wichita State University	Welding	\$99,960
The Cost of U.S. Navy Coatings QA/QC	Global Inspection Group , Atlantic Marine	SPC	\$81,700
Safe practices of Common Shipyard Rigging Equipment	NASSCO	SPPT	\$81,100
Hybrid Laser Arc Welding Economic Viability Study	Bollinger , NGSB-Gulf Coast, Penn State ARL	Welding	\$84,740
NVR Strength Criteria Implementation into MAESTRO FEA Application	DRS Defense Solutions , BIW, ABS, NGSB-GC(Avondale), NSWC-Carderock	PDMT	\$100,000
			\$1,234,726
Standby List			
Project	Participants	Panel	NSRP Funding
"Best of the Best" Practices in Shipyard Workers' Compensation Programs	Electric Boat , Barry Thompson/Risk Acuity, Bath Iron Works, NASSCO, Todd Pacific	FTRM	\$66,550

Other Initiatives

- Specifications Review
aka 'Documents for Ship Cost Reduction' (DSCR)
- Strategic Investment Plan Update



Specifications Review

Documents for Ship Cost Reduction (DSCR)

History

- Came about as a result of the NAVSEA strategic planning process and industry inquiry
- Spring 2008 – NAVSEA Tech Warrant Holders identified ~140 cost driving requirements
- Asked shipyards, thru NSRP, to ID which could be cut or amended ... & assessment of cost impact
- Solicited similar info from Marine Machinery Assn
- Analysis of input led to “Top 10 List” for initial effort

“Find stuff we no longer need or can no longer afford”

Specifications Review

DSCR Top 10

- MIL-STD-777 Schedule of **Piping**, Valves, Fittings & Associated Piping Components for Naval Surface Ships
- Naval Vessel Rules Part 8 relative to MIL-STD-1689 and MIL-STD-278 **Fabrication Welding** and Inspection of Ships Structure
- MIL-M-17060 **Motors**, 60 Cycle, Alternating Current, Integral HP, Shipboard Use
- MIL-DTL-16036 **Switchgear**, Power, Low Voltage, Naval Shipboard in conjunction with use of MIL-Spec circuit breakers (MIL-C-17587, MIL-C-17361)
- MIL-STD-167 **Vibration** Technical Area
- MIL-STD-740 Airborne and Structure Borne **Noise**
- MIL-STD-461E Electromagnetic Interference (**EMI**)
- MIL-STD 464A **Electromagnetic Environmental Effects** (E3) Requirements for Systems
- MIL-STD-469B / National Telecommunications Information Administration (NTIA) Chapter 5 **Radar** Engineering Interface Requirements, Electromagnetic Compatibility – Frequency Spectrum Guide for Radar
- MIL-S-901 **Shock** Technical Area

Specifications Review

Documents for Ship Cost Reduction (DSCR)

- NSRP conducted assessment of cost impact to proposed changes for:
 - MIL-STD-777 (piping & valves)
 - MIL-DTL-17060 (60Hz, AC motors)
 - MIL-STD-1689 / Tech. Pub 278 (welding)
- New commonality initiative – “Virtual Shelf” – also reviewed for impact
- Industry response submitted to NAVSEA at January ECB meeting



Specifications Review

Documents for Ship Cost Reduction (DSCR)

- NAVSEA delivered three new letters to NSRP requesting assessment of:
 - MIL-STD-167-1A (Mechanical Vibration) changes
 - Shock Testing requirements changes
 - Use of EM-TARTT (Electromagnetic Interference Testing & Reqts Tailoring Tool)
- Industry responses due at April ECB meeting



Strategic Investment Plan Update

- Last comprehensive update was 2004 – 2005
- SIP Update Working Group comprised of Major Initiative Leads, Panel Chairs and Navy reps
 - Best path for input is through your Panel Chair
- Kickoff meeting held on 22 Feb
- Virtual Meeting on 16 March
- Strategic direction will be sought from ECB members and Navy stakeholders
- Prioritization Workshop 4-6 May



Recent Meetings & Events

Dates	Event	Comments
Feb 24-26, 2010	Surface Preparation and Coatings <i>San Diego, CA</i>	Panel Meeting
Mar 10-11	ShipTech <i>Biloxi, MS</i>	Conference
Mar 10	Large Scale Computer Simulation Modeling <i>Biloxi, MS</i>	Workshop/ Demo
Mar 10-11	Product Design & Material Technologies <i>Biloxi, MS</i>	Panel Meeting
Mar 10-11	Electrical Technologies <i>Biloxi, MS</i>	Panel Meeting
Mar 11-12	Crosscut Initiatives <i>New Orleans, LA</i>	Panel Meeting



Upcoming Meetings & Events

Dates	Event	Comments
Apr 8-9	ASNE Day <i>Arlington, VA</i>	Conference
Apr 13-15	NDIA 11 th Annual and Engineering Technology Conference/DoD Tech Expo <i>Charleston, SC</i>	Conference
Mar 10-11	Welding Technology <i>South Padre Island, TX</i>	Panel Meeting
Apr 21-22	Joint Panel Meeting <i>Ponte Vedra Beach, FL</i>	Panel Meeting



For More Information

NEW HOMEPAGE DESIGN...

- Page for each Major Initiative
- New menu layout

NSRP has joined the blogosphere!

- Links off the home page to 6 blog sites
- One for each Major Initiative
- Users can post commentary, event descriptions, other relevant materials
- Additional avenues for tech transfer & networking

The screenshot shows the NSRP homepage with a navigation bar at the top containing: About Us, Project Information, Ship Production Panels, Industry Initiatives, and Solicitation. Below the navigation bar, there are several content blocks: 'RECENT VIDEOS' with thumbnails for 'Remote Climbing Robot for Automated Welding Processes' and 'Portable Automated Bulkhead and Hull Straightener'; 'Current Research Announcement' with a 'Solicitation Information' button; 'TECHNOLOGY TRANSFER' with links to 'Environmental Technologies Panel Meeting' and 'Surface Preparation & Coatings Panel Meeting'; 'MAJOR PROGRAM INITIATIVES' with a grid of categories like 'SHIPYARD PRODUCTION TECHNOLOGIES', 'SYSTEMS TECHNOLOGY', 'BUSINESS PROCESS TECHNOLOGIES', 'PRODUCT DESIGN & MATERIAL TECHNOLOGIES', 'FACILITIES TOOLING & RISK MANAGEMENT', and 'CROSSCUT INITIATIVES'; and 'NSRP PROJECT BOOK' with a 'Project Book 2010' link. The footer includes 'CO-FUNDED BY: THE U.S. NAVY & THE U.S. SHIPBUILDING INDUSTRY' with logos for the Navy, NSRP, and NAVSEA, and contact information for ATI (An MSCA affiliate) at 5300 International Boulevard, Charleston, SC 29418.

The screenshot shows the 'NSRP Major Initiatives Blog Site' with a navigation bar containing: HOME, HOW TO USE THE NSRP MAJOR INITIATIVE BLOG SITE, RETURN TO NSRP WEBSITE, and FEED. Below the navigation bar, there is a search box, a 'How to Use the NSRP Major Initiative Blog Site' section with instructions for posting comments, and an 'ADMINISTRATOR FUNCTIONS' section with links for 'Log in', 'Comments RSS', and 'WordPress.org'. The instructions list five steps: 1. Select a blog, 2. Read posting of interest, 3. Post comment by selecting 'Comments' link, 4. Comment sent to administrator for approval, 5. Once approved, comment is displayed. Contact information for the NSRP Administrator is provided at the bottom.

www.nsrp.org



Questions?

