

**National Shipbuilding Research
Program (NSRP)
Surface Preparation and Coatings Panel
(SP-3)**

Steve Cogswell, Chairman

SP-3 Panel Chairs report

NSRP SP-3 Shipyard Representatives

Atlantic Marine – Steve Cogswell

Bender - J. W Napper

Bath Iron Works - Mike Ferrell

Electric Boat - Skip Castro

Fleet Rep – John Kern

Ingalls/ Avondale – Keith O’Brien/Terry Hayes

NASSCO - Judie Blakey

Newport News – Arcino Quiere

Todd - Pete Judt

Panel Chair – Steve Cogswell- Atlantic Marine Florida

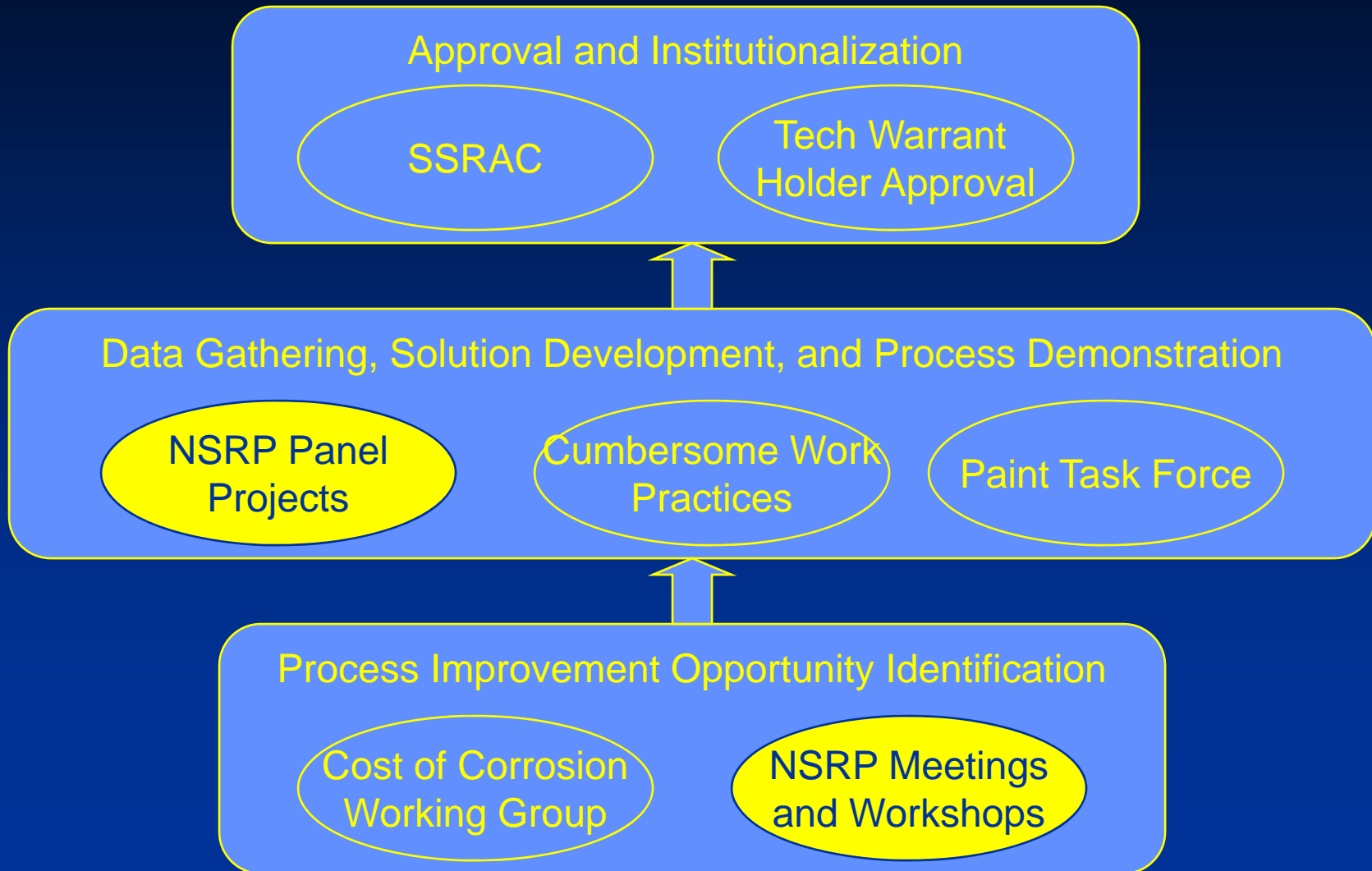
Panel Vice-Chair – Judie Blakey

NAVSEA Rep – Beau Brinckerhoff/Mark Ingle

Recent Meetings

- **February, 2008. Chair and Vice Chair met with Adm. McCoy at NAVSEA.**
 - A.I.- focus on the Cost Drivers in Preservation. Make sure you are collaborating with the Public yards and Mega Rust working groups for solutions
- **March, 2008 workshop to develop SSRAC proposals for revisions to Navy Standard Item 009-32,**
 - Public Yards, RMC's, Mega Rust, SP-3
- **June, 2008 review of current issues being worked by the various Navy groups**
 - Performed gap analysis to identify topics which would make good NSRP SP-3 Panel Projects
 - » Public Yards, RMC's, Mega Rust, SP-3
- **July 2008, presented SP-3 proposal to SSRAC**
- **August 2008, presented NSRP SP-3 to MEGA RUST.**
 - A.I. complete

NSRP Role in Navy Ship Painting Process Improvement



SSRAC NSRP Proposal Results

<u>Proposal #</u>	<u>Description</u>	<u>Action Taken</u>
<i><u>Proposals which were substantially accepted</u></i>		
59	Allow alternative of measuring core temp	Accepted as modified
86	12 hour ambient monitoring	Change 12 hours prior to 4 hours prior
112	Relax 50% RH for tank parts processed in shop	Accepted as modified
<i><u>Proposals which were accepted with substantial modification</u></i>		
64	Delete more restrictive non-skid storage temp	Expanded range slightly QA requirements waived for areas less than 1
68	Relax touch requirements	sq ft/0.03% QA requirements waived for areas less than 1
69	Delete certain QA requirements for touch-up	sq ft/0.03%
<i><u>Proposals which were positively received but action was deferred</u></i>		
54	PCP Retention	Defer to next year pending additional data
90	Allow HB 2 1/2 M on hand lance areas	Defer to next year pending additional data
91	Allow HB 2 1/2 M on hand lance areas up to 30%	Defer to next year pending additional data
<i><u>Proposals which were not adopted</u></i>		
76	Eliminate CAP sheet requirement	Rescinded because paperless is not ready
79	Allow in-house inspector training	Not adopted
81	Allow ISO 9000 as alternative to QP-1	Not adopted
88	Delete requirement to document manual readings every 12 hours	Not adopted
111	Relax 50% RH in tanks	Not adopted

Surface Preparation and Coatings Issues Being Addressed

Developed by NSRP SP-3 Meeting Participants

June 19, 2008 - Virginia Beach, VA

Current Activity Area	Cost of Corrosion Issues (MegaRust WG)	Cumbersome Work Practices (Public Yards)	NSRP SP-3 Panel Project (see note)	FY-10 SSRAC Proposal
Underwater Hull Surface Prep – Flash Rust Allowance				
Eliminate Stripe Coat				
Induction Heating Coating Removal System				
One Coat Preservation System				
Inspection (QA-Tools/Paperless Paint)				
Cost-Benefit of 100% holiday free			X	
Structural degradation CbM				
Cosmetic Repainting Criteria			X	
Corrosion resistant material use				
SI 009-99 enforcement				
Enhance E-CAT (service life projection)				
Combat systems corrosion				
Eliminate CAP Sheet Submittal				
Relax the Requirement to Take Readings to Validate Operation of Environmental Recorders.				
Allow in-house Training of Coatings Inspectors.				
Monitoring Paint Temperature Prior to Application.				
Non-value added touch-up work.				
Allow Retention of Pre-construction Primer (PCP).			X	
Allow Alternative to QP-1 Certification.				
Relax Paint and Non-skid Storage Temperature.				
Reduce OQE for Touch-Up Areas.				
Application.				
Relax Requirement to Maintain 50% Relative Humidity.			X	
Environmental Concerns (perhaps in conjunction with SP-1)			X	
Relax Chloride Requirements			X	

NOTE: "X" indicates that there was some agreement by meeting attendees that a meaningful SP-3 Panel White Paper Project could be performed in this area. All white paper project proposals are welcome and will be evaluated in accordance with the proper procedures.

Upcoming Meetings

- **SP-1 and SP-3 joint meeting Sept. 30 through Oct. 2, 2008 at CTC in Johnstown, PA**
- **SP-3 meeting the week of March 23rd in conjunction with NACE (Atlanta GA)**
- **Spring – NASSCO tour of the new Blast and Coat facility**
- **Plan to meet with the Crosscut/Safety Panel in the near future**

Current Panel Projects 2008

Project	Panel	NSRP Funding	Est. Cost Share*	Duration
Field Study Of Ship Coating Performance over Flash Rust	Surf Prep & Coat	\$99,540	\$0	12 mos
Automatic Induction Brazing System for Shipboard Pipe Brazing Applications	Welding	\$91,300	\$0	12 mos
Portable Lifting/Manipulator for Shipboard Environment	Fac/Tool/Risk Mngmt	\$71,700	\$0	12 mos
Constraint Based Design and Planning	Shipyard Prod'n	\$99,200	\$68,457	12 mos
Preparation of Manual on How to Inspect Flash Rust	Surf Prep & Coat	\$74,400	\$41,800	12 mos
Evaluation of Prequalified Welding Procedures for Naval Construction	Welding	\$89,727	\$0	12 mos
Shipbuilding Opportunities in Short Sea Shipping (S3): Reducing U.S. Shipbuilding Costs for S3	Prod Des & Mat'ls	\$99,000	\$7,500	10 mos
Portable Welding Robot	Welding	\$84,000	\$84,000	12 mos
Panel Line Optimization Through Predictive Scheduling II (PLOPS II)	Shipyard Prod'n	\$99,550	\$20,000	10 mos
Improving Design-Analysis Data Management Capabilities for Composite Materials Used in Ships	Systems	\$100,000	\$0	12 mos
Development of Shipyard Oil Handling Best Management Practices Guidebook	Environ	\$61,744	\$0	12 mos
Standardize Interoperable Curricula Across Shipyards	Crosscut	\$90,000	\$15,000	12 mos
SPARS Vendor Packing List	Business	\$99,980	\$0	9 mos

Recent Proposed Projects 2009

- **Surface Preparation and Coating Benchmarking Initiative**
- **High-Solids Coatings Application Process Reference Guide**
- **Increased Productivity & Waste Reduction in Tank Blasting**
- **Applying Statistical Process Control to Coating Activities**
- **Applying Lessons Learned to New Building Coatings Selection and Application**
- **Quality Assurance Rules for Painting Navy Ships**
- **Flash Rusting Acceptability for Ship Coating**
- **Surface Preparation Quality Assurance/Quality Control Process Improvement**

Fifteen 2008 White Paper Submissions

- **Development of Mobile Instrument to Measure Paint Adhesion on “Flash Rust” Dust**
- **Study to Determine the Level of Salt Mitigation as Related to the Accuracy of the Measurement**
- **Commercial off the shelf (COTS) Paperless QA Software Programs**
- **“Lean” Implementation of a Dedicated Thirty (30) Day Preservation Plan for US Navy Ships**
- **Comparative Analysis of International Maritime Classification Societies (IACS) and United States Navy (USN) Quality Assurance (QA) Inspection of Marine Coating Systems**
- **MAEE Productivity Enhancement**
- **Assessing the Need for 50% Relative Humidity During Tank Painting**

Fifteen 2008 White Paper Submissions (cont'd)

- **Integration of Commercial Paperless Preservation QA Systems with the Navy CQATK**
- **Retention of Pre-construction Primer**
- **Implementation of Datalogging Surface Profilometers for Paperless QA**
- **Reducing the Impact of Touch-up and Rework of Surface Preparation and Coating**
- **Surface Preparation and Coating QA/QC Inspector Flashlight Intensity Standard Recommendation**
- **Robust Universal Environmental Enclosure System**
- **Human Systems Integration (HSI) – A Study of How this Concept can Improve Surface Preparation, Coatings Application, and Quality Assurance in the Shipbuilding and Ship Repair Industry**
- **Surface Preparation Method SP-15 Versus SP-11**

Whitepaper Selections for 2009

- **Retention of Pre-Construction Primer**
- **COTS Paperless Paint**
- **Assessing the need for 50% RH**

Questions?