Fleet Maintenance & Modernization Symposium

(FMMS 2013)

San Diego, California, USA 27-28 August 2013

ISBN: 978-1-5108-0379-4

Printed from e-media with permission by:

Curran Associates, Inc. 57 Morehouse Lane Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2013) by the American Society of Naval Engineers All rights reserved.

Printed by Curran Associates, Inc. (2015)

For permission requests, please contact the American Society of Naval Engineers at the address below.

American Society of Naval Engineers 1452 Duke Street Alexandria, Virginia 22314

Phone: (703) 836-6727 Fax: (703) 836-7491

asnehq@navalengineers.org

Additional copies of this publication are available from:

Curran Associates, Inc. 57 Morehouse Lane Red Hook, NY 12571 USA

Phone: 845-758-0400 Fax: 845-758-2634

Email: curran@proceedings.com Web: www.proceedings.com Keynote Address

VADM David H. Buss, USN; Commander, Naval Air Force, U.S. Pacific Fleet

Technical Track A

Track 1A - Lifecycle Management and Total Ownership Cost

Moderator: Mr. Mike D'Amato, AMSEC, A Subsidiary of Huntington Ingalls Industries

Better Enabling the on Schedule and on Budget Performance of Major Equipment Replacements, Modernizations and Nuclear Refuelings Robert G. Brown (Dassault Systemes Delmia Corp.)

Improved Fleet Readiness with Innovative and Cost Effective Technology Kathy Carawan, Arthur Billingsley (Oracle)

Track 2A - New Technology

Moderator: Mr. David Saavedra, ASNE San Diego Section Secretary

Underwater Dry Chamber Aluminum Welding in Support of U.S. Navy Ship Repair Operations (Hyperbaric Aluminum Welding)
Kenneth Elliott, Justin Pollack (Phoenix International Holdings)

A 13 Year Assessment of the Condition of Seawater Ballast Tanks of the USS ESSEX (LHD 2) preserved with High Solids Coatings

Mark Ingle & Robert Steele (NAVSEA), Paul Slebodnick, James R. Martin, John Wegand & Edward J. Lemieux (NRL), Bruce N. Nelson (Battenkill Technologies, Inc.), Gordon Kuljian (GK Consulting, LLC) John L. Cuzzocrea (EXCET, Inc.), David Zuskin (SAIC)

Track 3A - Modernization and Maintenance

Moderator: Dr. Robert Sielski, Naval Architect - Structures

Stator Winding Partial Discharge Activity for Marine Air-Cooled Generators Vicki Warren (Qualitrol)

Electronic Underwater Thickness Inspections on Navy Ships: Using Technology to Achieve Precise, Measurable, and Repeatable Results

Peter LeHardy (Phoenix International Holdings), Joey Walters (Seaward Marine Services Inc.)

Keynote Speaker

'''KXu'Cm'Cdqw'y g'U kru

RDML Bryant Fuller, USN; Chief Engineer and Deputy Commander for Naval Systems Engineering, NAVSEA

Technical Track B

Track 1B - Lifecycle Management and Total Ownership Cost

Moderator: Mr. Kirk Burgamy, Q.E.D. Systems, Inc.

UHMWPE – A Maintenance Free Material for Extending Life Cycle of Shipboard Well Deck Systems

Gary Koza (Life Cycle Engineering, Inc), Bryan Olin (Polymer Industries)

Topside Corrosion Control (TCC) System Initiative: A Singled Up, Comprehensive Approach to Topside Corrosion Control

Steve Melsom, Linda Stiles (SEA 21), Edward Lemiuex, John Wegand (NRL), Ed Godfrey (SEA 21), Patrick Lahr (Corrosion Control Knowledge Sharing Network)

Track 2B - New Technology

Moderator: LT Eric Brege, USN, P.E., SWRMC

Adaptation of Industrial Robotics to Fleet Maintenance Joseph Wagner (Battelle)

Initiatives in Bonded Ship Structural Repairs
John M. Noland, Daniel C. Hart, Douglas C. Loup, Edward P. Udinski (NSWC Carderock), Robert A. Sielski (Naval Architect–Structures)

Track 3B - Modernization and Maintenance

Moderator: Mr. Jason Thomas

Auxiliary Electric Drive (AED) for the United States Coast Guard WMSL-750 Class Ship

Ahmed Majumder (USCG CG-932), Michael A. Mensch, Michael J. DiTaranto, Nicholas R. Dewey (NSWC SSES), CAPT John G. Walker, USN (Ret.) (Thor Solutions LLC)

Product Line Management: The Right Tool for Today's Fleet RADM Ron Rábago, USCG (CG-4), CDR Paul Stukus, USCG (CG-452)

Track 4B - Modernization and Maintenance

Moderator: Mr. Rich Caccese, SEA-21

The Material Condition Kill Chain

RADM Robert O. Wray, Jr., USN; President, INSURV

CG 47 Cruiser Harvesting Project — Part 2: The Cost Avoidance and Additional Benefits of Harvesting Assets from Ex-CG 47/48/51

Ashley Ferguson, Alan Karpovitch (NSWC Carderock Div Det Phila)

Panel Discussion: Improving Affordability in New Ship Design and Construction Moderator: RADM Jeffrey Brooks, USN (Ret.), General Dynamics NASSCO-Earl Industries

RADM Robert Wray, USN; President, INSURV

RADM Joseph Horn, USN; PEO IWS RDML David Lewis, USN; PEO Ships PRESENTATION Mr. Fred Harris, President, General Dynamics NASSCO

Wednesday, August 28

Panel Discussion: Readiness Tradeoffs - Effective and Affordable Decisions

to Shape the Force

Moderator: RADM Joseph Campbell, USN (Ret.), American Systems

RADM Ronald Rábago, USCG; Assistant Commandant for Engineering and Logistics

RADM Richard Berkey, USN; Fleet Maintenance Officer, Fleet Forces Command RDML Mark Whitney, USN; SEA 04 RDML David Gale, USN; Commander, Navy Regional Maintenance Command

RDML Bryant Fuller, USN; Chief Engineer and Deputy Commander for Naval Systems Engineering, NAVSEA

Technical Track C

Track 1C - Lifecycle Management and Total Ownership Cost Moderator: LT Amanda Towey, SWRMC Code 300

Supporting the U.S. Navy Fleet in Any Sea: From Design to In-Life Sustainment to Modernization

Umberto Vianello, Philip Bozzelli, Francesco Perra, Lorenzo Rainiere (Fincantieri Marine Group)

Track 2C - New Technology

Moderator: LT Michael J. Beautyman, Jr., SWRMC Code 330

Life Extension of a 100,000 Deadweight Floating Storage Unit for the Australian Continental Shelf

Iain Braidwood (Teekay Corporation)

Copper Based Antifouling – A Regulatory Update and Recent Scientific Environmental Studies

Neal Blossom (American Chemet Corporation)

Track 3C - Modernization and Maintenance

Moderator: LCDR Marianne Holtphoenix, USN; CNSP

Readiness Engineering Data Integration (REDI) System Michael Dipilla, Christopher Philip (NSWC SSES)

Underwater Replacement of #1 Shaft Stern Tube Bearing on USS George H. W. Bush (CVN 77)

Thomas Payne, Peter LeHardy (Phoenix International Holdings)

Track 4C - Modernization and Maintenance

Moderator: Mr. Glenn Hofert, P.E., Q.E.D. Systems, Inc.

LEDs: Lowering Maintenance Costs and Energy Consumption Roger Buelow, Greg Flies, Keith Kazenski (Energy Focus, Inc.)

Keynote Speaker

VADM Thomas H. Copeman, USN; Commander, Naval Surface Forces/ Commander, Naval Surface Force, U.S. Pacific Fleet

Point-Counterpoint Panel

Moderator: RDML Joe Carnevale, USN (Ret.)

Navy Panelists:

RADM Richard D. Berkey, USN; Fleet Maintenance Officer, U.S. Fleet Forces Command

RDML David J. Gale, USN; Commander, Navy Regional Maintenance Command CAPT Michael Malone, USN; Commanding Officer, Surface Maintenance Engineering Planning Program

Industry Panelists:

Mr. David J. Carver, Vice President of Repair, General Dynamics NASSCO

Mr. Thomas W. Epley, President and CEO, Marine Hydraulics International Inc.

Mr. Robert A. Kilpatrick, President and General Manager, BAE Systems