

# **ASNE Day 2015**

Engineering America's Maritime  
Dominance

Arlington, Virginia, USA  
4-5 March 2015

ISBN: 978-1-5108-0923-9

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57 Morehouse Lane  
Red Hook, NY 12571



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# ASNE Day 2015

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## **Technical Paper Session 1**

2:00 PM - 3:40 PM

Track: Technical Papers

Moderator: Steve Markle (Director, Electric Ships Office, PMS320, NAVSEA)

### **2:00-2:25: Enhancing Warfighter Capability Through an Energy Management Information System 1**

Mr. Tom Sullivan (Herren Associates), Mr. Richard Eckenroth (CDI Engineering Solutions), Mr. Thomas Martin (NAVSEA Energy Office)

### **2:25-2:50: High-Phase-Order Induction Generators for Electric Ships 10**

Mr. Thomas McDermott (University of Pittsburgh), Parviz Famouri (West Virginia University), Sherwood Polter (NSWCCD Philadelphia) -

### **2:50-3:15: Commercially Derived Hybrid Drive (HED) Systems for Naval Ships 17**

Dr. Timothy McCoy (McCoy Consulting, LLC), Mr. Aydin Mohtashamian

### **3:15-3:40: Modular Multi-Mode Power Supplies for Naval Power Systems 28**

Mr. John Herbst, Joe Beno, Hamid Ouroua, Robert Hebner, Scott Pish, Jon Hahne (University of Texas at Austin) -

## **Technical Paper Session 2**

4:00 PM - 5:40 PM

Track: Technical Papers

Moderators: Dr. Tony Dean (Professor, Old Dominion University) and Mike D'Amato (HII-AMSEC)

### **4:00-4:25: The Future of Additive Manufacturing to Improve Naval Readiness 39**

Dr. Tony Dean, Dr. Sebastian Bawab, Dr. Jennifer Michaeli, Mr. Michael

Ploanco (Old Dominion University), Mr. James Lambeth, Ms. Carol Lambeth, Mr. Jim Shannon (NSWCDD)

**4:25-4:50: Naval Enterprise Engineering: Design, Innovate and Train (NEEDIT) 49**

Mr. Robert Galway (NSWC Combatant Craft Division) -

**4:50-5:15: Human Resilience in Ship Design 78**

CAPT John Cordle, USN (Ret.) (AMSEC LLC) -

5:15-5:40: Using a Diversity Metric in Set-Based Design to Establish a Representative Cost **N/A**

Dr. Norbert Doerry (NAVSEA 05T)

**Combat Systems Session 2**

4:00 PM - 5:30 PM

Track: Combat Systems

Topic: "Combat Systems: Better Buying and Long Term Planning"

Moderator: Ms. Karen Davis, Director, Integrated Combat Systems (PEO IWS D)

CAPT Tom Druggan, USN; PEO IWS 1.0

RADM Brad Hicks, USN (Ret.); **Lockheed Martin - 96**

**General Dynamics 97**

RDML Jim McManamon, USN (Ret.); GDIT -

**AEGIS Combat System Upgrade Development 102**

Mr. Steve Weber, PEO IWS 1.0, Strategic Planning PAPM -

## **Women in Naval Engineering Session 2: Current State of Research Panel\***

4:00 PM - 5:30 PM

Track: Women in Naval Engineering

Moderator: Dr. Paige Smith, Director, Women in Engineering Program,  
A. James Clark School of Engineering, University of Maryland

Ms. Christi Corbett, American Association of University Women

Ms. Rene Reynolds, NAVSEA 21 Program Analyst

## **Future Navy Programs Session 2: Destroyers**

4:00 PM - 5:30 PM

Track: Future Programs

Moderator: Mr. Carey Filling, Director, NAVSEA 05D2

## **DDG 1000 Zumwalt Class Destroyer: 105**

CAPT James Downey, USN, Program Manager for DDG 1000

## **DDG 51 FLT III Update 110**

Arleigh Burke Class Destroyer: CAPT Mark Vandroff, PMS 400D  
Program Manager for DDG 51 Destroyer; Mr. Rich Sturges, PMS 400D8  
DDG 51 Flight Upgrade Manager; and Mr. Walter Mebane, SEA 05D2  
DDG 51 FLT III SDM -

## **Technical Paper Session 3: Flexible Ships**

1:30 PM - 3:10 PM

Track: Technical Papers

## **Flexible Ships: Affordable Relevance over the Life Cycle 122**

Moderators: Lance Flitter and Don Anderson (NSWC Carderock) -

## **The Danish Experience with Flexible Warships 125**

Mr. Klaus Sorenson (Odense Maritime Technology) -

## **2:20-2:45: Business Model innovation: The Case for Flexible & Common Warships 140**

Mr. Jeff Voth, Ms. Ann Lowe (Herren Associates), Mr. Glen Sturtevant (PEO Ships/SEA 21) -

## **An Agile Method to Consider Modularity and Flexible Ship Architectures in Early Stage Naval Ship Design 149**

Mr. Peter McCauley (NSWC Carderock), Dr. Shari Hannapel (NAVSEA 05), Dr. Chris Bassler (NSWCCD 824), Mr. Jeff Koleser (NAVSEA 05) –

## **Future Navy Programs Session 3: Littorals**

1:30 PM - 3:00 PM

Track: Future Programs

Moderator: Mr. Carey Filling, Director, NAVSEA 05D2

- Jeffrey Merlino, Senior Engineering Advisor, **Machinery Systems Arrangements and Integration 159**
- , NSWCCD-SSSES -
- Littoral Combat Ship (LCS) Modernization/FF: CAPT Thomas Anderson, USN, LCS Program Manager (PMS 501); CAPT John Fuller, OPNAV N96; and CAPT Dan Brintzinghoffer, PMS 515
- LX(R) Future Amphibious Ship: CAPT Darren Plath, USN, LPD-17 Class Program Manager; Mr. Dan Maher, PMS 317 Technical Director for LX(R); and Mr. Edward Hatcher, SEA 05D3 SDM

## **Women in Naval Engineering Session 3: Professional Mentorship Round Table**

1:30 PM - 3:00 PM

Track: Women in Naval Engineering

Moderator: Ms. Jennifer Lin, NAVSEA  
Assistant Moderator: Ms. Erin Kampschroer (PMS 377)

Ms. Robin White, SES, NAVSEA/05D  
CAPT Heidemarie Stefanyshyn-Piper, USN, Commander, SWRMC  
Dr. Julie Christodoulou, SES, ONR  
Ms. Kathleen Minnich, NAVSEA/PMS 377  
Ms. Jessica Kleist, NAVSEA/PMS 397 (PEO Subs)  
Ms. Marianne Lyons, NAVSEA/PMS 317  
Mr. Mathew Sermon, NAVSEA, PEO Ships  
Mr. Glenn Gardner, NAVSEA  
LCDR Lexy Cherry, USCG  
CDR Tracy Phillips, USCG  
CAPT Glenn M. Ashe, USN (Ret.); President, ASNE  
Mr. Ed Godfrey, LCE  
Mr. Tom Rivers, PMS 377  
Mr. Rich Delpizzo, ABS  
Ms. E. Anne Sandel

#### **Technical Paper Session 4: Energy and Sustainability\***

3:20 PM - 4:35 PM

Track: Energy and Sustainability

Moderator: Mr. Jim Rudroff, (ASN) EIE/ODASN Environment

3:20-3:45: Beltran Co-generation System for Garbage and Waste Treatment

Michael Beltran, Beltran Technologies, Inc., and Dr. Yakov Khodorkovsky

3:45-4:10: Proactively Reducing Noise Pollution – Above and Below the Waterline

Jesse Spence, Noise Control Engineering

4:10-4:35: **Electronically Controlled Marine Jet Propulsion and Modeling 171**

Mr. Jeff Jordan, IntelliJet Marine, Inc. -

## **Technical Paper Session 5**

3:20 PM - 5:00 PM

Track: Technical Papers

Moderator: Mike Bosworth (S&T Director, PEO Littoral Combat Ships, NAVSEA, PMS320, NAVSEA) and Mr. Brian Fitzpatrick (PEO LCS)

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Dr. Sung-Eun Kim, Mr. Ronald Miller, Mr. Bong Rhee, Mr. Hua Shan, Mr. Shawn Aram, Mr. Abel Vargas (NSWC Carderock) -

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Mr. Nickolas Guertin (DASN RDT&E), CAPT Paul VanBentham, USNR (SPAWAR) -

### **4:10-4:35: Multi-Scale, Interdisciplinary Systems Analysis for Naval Platforms 224**

Mr. Robert Dellsy, Dr. Morgan Parker, Dr. Douglas Rigterink (NSWC Carderock) -

### **4:35-5:00: Emerging Engine Technologies for Reducing Fuel Consumption and Emissions 235**

Dr. K. Kailasanath (Naval Research Laboratory) -

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*Mike Spencer*

### **N79 USS John F. Kennedy Aircraft Carrier Program 253**

*Doug Vaughters*



**OHIO Replacement Ship Design 259**

*Mike Breslin*

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*A.J. Hoffman*

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*Jeffrey Merlino*

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*Steve Orrin*