## Electric Machines Technology Symposium (EMTS 2010)

# **Increasing Energy Efficiency and Enabling New Capabilities**

Philadelphia, Pennsylvania, USA 19 – 20 May 2010

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## **Electric Machines Technology Symposium (EMTS) 2010 Proceedings**

Event Date: May 19-20, 2010

Event Location: Independence Seaport Museum, Philadelphia, PA

Day 1: Wednesday, 19 May

#### **Conference Welcome and Opening Remarks**

Dr. E. Michael Golda, Chairman, EMTS 2010 CAPT Alexander Desroches, USN; Commanding Officer, Naval Ship Systems Engineering Station, Philadelphia, PA Ms. Kathleen Hinton, President, ASNE

#### **Acquisition Challenges**

Dr. John Amy, Senior Advisor EMALS Integration, Office of the Assistant Secretary of the Navy

(Research, Devlopment, and Acquisition)

"Acquisition Challenge that Software Poses in Achieving Increased Energy Efficiency and

Expanded Electrical Capabilities"

#### **Developing a Combined Strategic Roadmap**

Dr. Norbert Doerry, NAVSEA, Deputy Director Future Concepts and Surface Ship Design (NAVSEA 05DB)

"Issues in Developing a Combined Strategic Roadmap for Energy Efficiency and 14 Integrated Power"

#### **Keynote Address**

RDML David H. Lewis, USN; Vice Commander, Naval Sea Systems Command

#### **Luncheon Program**

CAPT Heide Stefanyshyn-Piper, USN; Chief Technology Officer, NAVSEA 05, former 28 NASA Astronaut

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Moderator: Dr. Scott Sudhoff

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- 2. Naval Integrated Cryogenic Engineering Plant N/A Brian Fitzpatrick, Jacob Kephart and Nathan Spivey
- 3. USS Makin Island Auxiliary Propulsion System: Identification and Accomodation 55 of System Level Interactions
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- 2. Flywheel Energy Storage in Support of Naval Integrated Power Systems 102
  Richard Hockney and Matthew Polimeno
- 3. Comparing the Pareto-Optimal Fronts of Machine Rectifier Systems 108 M. Bash, S. Sudhoff, and S. Pekarek

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- 3. A Shipboard Energy Conservation and Fuel Management Decision Tool Grant John Gorton, Bob Hogan, Eric Schneider and Chris Savage
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   M. Steurer, J. Langston, A. Farrell, T. Chiocchio, J. Vaidya, S. Azongha, K. Schoder,
  - M. Sloderbeck, C. Edrington and K. Yost
- Advanced Energy Storage System for Single Engine Cruise and Related N/A
   Applications
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- 3. Fault Detection and Diagnosis for Condition Based Maintenance of Electrical N/A Machines Using Particle Swarm Optimization
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- Mr. Glen Sturtevant, PEO Ships, Director of Science and Technology PRESENTATION
- Dr. John Pazik, Office of Naval Research PRESENTATION
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