2021
UNDERSEA WARFARE
FALL CONFERENCE

Enabling the Undersea Force for High-End Combat Today, While Fielding the Undersea Force of Tomorrow

September 27 – 29 | NDIA.org/FallUSW
AGENDA

MONDAY, SEPTEMBER 27

3:00 – 6:30 pm  
REGISTRATION  
MYSTIC MARRIOTT HOTEL AND SPA

5:00 – 6:30 pm  
RECEPTION  
MYSTIC MARRIOTT HOTEL AND SPA

TUESDAY, SEPTEMBER 28

7:00 am – 5:20 pm  
REGISTRATION  
DEALEY CENTER AUDITORIUM

7:00 – 8:00 am  
NETWORKING BREAKFAST  
OUTSIDE PLAZA

8:00 – 8:15 am  
CALL TO ORDER & INTRODUCTION OF SPEAKERS  
DEALEY CENTER AUDITORIUM

Mike Cortese  
Senior Manager, Washington Operations, General Dynamics Electric Boat  
Chair, Undersea Warfare Division, National Defense Industrial Association (NDIA)

MG James Boozer, USA (Ret)  
Executive Vice President, NDIA

Rob Dunn  
Conference Chair, Undersea Warfare Division, NDIA

8:15 – 8:45 am  
PRESENTATION  
DEALEY CENTER AUDITORIUM

VADM Bill Houston, USN  
Commander, Submarine Forces

8:45 – 9:15 am  
PRESENTATION  
DEALEY CENTER AUDITORIUM

RADM Jeff Jablon, USN  
Commander, Submarine Force Pacific Fleet

9:15 – 9:45 am  
PRESENTATION  
DEALEY CENTER AUDITORIUM

RADM David Goggins, USN  
Program Executive Officer, Submarines
9:45 – 10:15 am | NETWORKING BREAK
OUTSIDE PLAZA

10:15 – 10:40 am | PRESENTATION
DEALEY CENTER AUDITORIUM
Ron Vien
Technical Director, Naval Undersea Warfare Center

10:40 – 11:10 am | PRESENTATION
DEALEY CENTER AUDITORIUM
RADM Lorin Selby, USN
Chief of Naval Research

11:10 – 11:40 am | PRESENTATION
DEALEY CENTER AUDITORIUM
RDML Scott Pappano, USN
Program Executive Officer, COLUMBIA

11:40 – 11:55 am | AWARDS CEREMONY
DEALEY CENTER AUDITORIUM
Pierre Corriveau
Awards Chair, Undersea Warfare Division, NDIA

11:55 am – 1:00 pm | NETWORKING LUNCH
BASE GYMNASIUM

1:00 – 1:05 pm | INTRODUCTION OF SPEAKERS
DEALEY CENTER AUDITORIUM
Rob Dunn
Conference Chair, Undersea Warfare Division, NDIA

1:05 – 1:30 pm | PRESENTATION
DEALEY CENTER AUDITORIUM
Jay Dryer
Director, Office of the Secretary of Defense, Strategic Capabilities Office

1:30 – 2:00 pm | PRESENTATION
DEALEY CENTER AUDITORIUM
CAPT Gary Montalvo, USN
Commodore, SUBDEVRON FIVE

2:00 – 2:30 pm | PRESENTATION
DEALEY CENTER AUDITORIUM
Andrew Richardson
Deputy Commander, Office of Naval Intelligence
2:30 – 3:00 pm  
**NETWORKING BREAK**  
OUTSIDE PLAZA

3:00 – 3:30 pm  
**PRESENTATION**  
DEALEY CENTER AUDITORIUM  
RDML Ron Piret, USN  
Commander, Naval Meteorology and Oceanography

3:30 – 4:00 pm  
**PRESENTATION**  
DEALEY CENTER AUDITORIUM  
CAPT Pete Small, USN  
Unmanned Maritime Systems (PMS 406)

4:00 – 4:30 pm  
**PRESENTATION**  
DEALEY CENTER AUDITORIUM  
CAPT Dan Papp, USN  
Program Executive Officer, Air Anti-Submarine Warfare (PMA 264)

4:30 – 5:00 pm  
**PRESENTATION**  
DEALEY CENTER AUDITORIUM  
RADM Doug Perry, USN  
OPNAV N97

5:00 pm  
**CLOSING REMARKS**  
DEALEY CENTER AUDITORIUM  
Mike Cortese  
Senior Manager, Washington Operations, General Dynamics Electric Boat  
Chair, Undersea Warfare Division, NDIA

6:00 – 7:00 pm  
**NETWORKING RECEPTION**  
Pre-Registration Required

7:00 – 9:30 pm  
**NETWORKING DINNER**  
NORTH LAKE  
Pre-Registration Required

### WEDNESDAY, SEPTEMBER 29

7:00 am – 5:15 pm  
**REGISTRATION**  
DEALEY CENTER AUDITORIUM

7:00 – 8:00 am  
**NETWORKING BREAKFAST**  
OUTSIDE PLAZA
**CONCURRENT BREAKOUT SESSIONS**

### 8:00 – 8:30 am

**Combat Systems and Warfighter Performance**

- 23984
  - PEO IWS 5.0 Program Status and Plans
  - CAPT Jill Cesari, USN
    Major Program Manager, Program Executive Office for IWS 5.0

- 24136
  - Robotic Submarine Sustainment and a Vision Towards Sustainment Operations at Sea: Extending Operational Lifecyle, Maximizing Operational Availability, and Automated Battle Damage Assessment
  - David Shane
    Program Manager, Business Development, Boston Engineering

**Undersea Vehicles**

- 24112
  - Rapid Acquisition Sensor and Response (RASR): Drifting Passive and Coherent Tactical
  - Shelby Sullivan
    Chief Scientist II, BAE Systems, FAST Labs

**Aviation Systems**

- 24113
  - Multi-Ship Sonar Bi-Static Automatic Active Localization
  - Dr. Terence Bazow
    Director, Advanced Systems Technology, Metron Incorporated

- 24158
  - ONI Presentation

**Undersea Sensors**

- 24159
  - Maritime Surveillance Systems Program's (PMS-485) Role in the Undersea Domain
  - CAPT Doug Adams, USN
    Major Program Manager, Maritime Surveillance Systems (PMS-485)

### 8:30 – 9:00 am

**IWS 5.0 Combat Systems Update**

- 24127
  - The Dive-LD: A Transformational LDUUV for Advanced Subsea Applications
  - James Buelscher
    Director, Programs, Dive Technologies

- 24137
  - Guidance and Track Reconstruction for an Autonomous Underwater Vehicle
  - Michael Samarcu
    Electrical Engineer, NASC

**ONI Presentation**

- 24166
  - Timely Information for Maritime Engagements (Timely) Update
  - Aaron Kofford
    Program Manager, Defense Advanced Research Projects Agency

### 9:00 – 9:15 am

**NETWORKING BREAK OUTSIDE PLAZA**

### 9:15 – 9:45 am

**Future State for Submarine Computing: Progress Report**

- 24104
  - Matthew Corser
    Program Executive Officer, SUB-5 CHENG, Naval Undersea Warfare Center (NUWC)

**LDUUV Launch and Recovery on Submarine Host Platforms**

- 24152
  - Jack Chapman
    Staff Engineer, Electric Boat Corporation

**Development of a Cable Pack for a Rap Depth Sonobuoy**

- 24140
  - David Hammond
    Program Manager, Navmar Applied Sciences Corp

**IWS 5.0 Sensors Update**

- 24094
  - Peter Scalia
    Program Executive Officer, IWS 5.0

**ONI Presentation**

- 24092
  - Innovation at Speed Through Lab-As-A Service (LAAS)
    - John Sprague
      Engineering Director and Strategic Advisor, World Wide Technology

**Installation of Expeditionary Distributed Acoustic Sensor Systems Using Unmanned Surface Vessels**

- 24107
  - Dallas Mcgill
    Managing Director, Sound & Sea Systems

### 9:45 – 10:15 am

**The Submarine Track Picture – Bringing a Cop to the Edge**

- 24132
  - William Roman
    Naval Undersea Warfare Center, Future Capabilities, NUWC – Newport

**Glider and Profiling Float Applications for Theater ASW**

- 24145
  - CAPT Peter Fuzesi, USN (Ret)
    Director, Navy Program Development, Teledyne Marine

**ONI Presentation**

- 24150
  - Communications Architecture Trade Study
    - William Craig
      Advanced Technology Technical Advisor, World Wide Technology

**USV ASW Capability Results from UXS Integrated Battle Problem 21**

- 24161
  - Dr. Linda Fitzzel-Bakowski
    Program Manager, Johns Hopkins University Applied Physics Laboratory (HU APL)

### 10:15 – 10:30 am

**NETWORKING BREAK OUTSIDE PLAZA**

### 10:30 – 11:00 am

**Mitigation of Software Bloat in Integrated Builds**

- 24101
  - Dr. Benjamin Drozdienko
    Computer Engineer, NUWC – Newport

**ONI Presentation**

- 24066
  - ONI Presentation

**Undersea Communications**

- 24177
  - CAPT Dave Kuhn, USN
    Program Manager, Program Executive Office for C4I (PMN 770)

**The Maritime Testbed (MTB): An Enabling Navy Capability to Support Subsea & Seabed Warfare (SSW) Technology Development**

- 24171
  - Dr. Robert Barton, III
    Advanced Capabilities Manager, PMS 485 D2, NUWC – Newport

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**ONI Presentation**

- 24146
  - Sustaining The Undersea Advantage: Transforming Anti-Submarine Warfare Using Autonomous Systems
  - Bryan Clark
    Senior Fellow, Hudson Institute

**Waveform Identification, Source Localization, and Fully-Automated Active Bistatic Processing**

- 24097
  - Dr. Ryan Pihl
    Research Scientist, Applied Research Laboratories, University of Texas at Austin

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**Autonomous Undersea and Surface Vessel (AUSV)**

- 23977
  - Jeffrey Williams
    Vice President, Ocean Aero, Inc.

**OPNAV N952 Update**

- 24176
  - CAPT Mike Egan, USN
    Branch Head, OPNAV N952

**Next-Generation Surveillance Towed Array System with Open Architecture Telemetry Methodology**

- 24126
  - Nicholas Minovich
    Sensors Assistant Program Manager, Program Executive Office for WS 5.0

**ONI Presentation**

- 24093
  - ONI Presentation

**Mine Warfare**

- 24095
  - ONI Presentation

**C4I**

- 24096
  - ONI Presentation

**Undersea Sensors**

- 24169
  - ONI Presentation

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**Future Capabilities, NUWC – Newport**

- 24135
  - IWS 5.0 Combat Systems Update
  - CAPT Bob Baughman, USN
    Director, Mine Warfare Division, Naval Surface and Mine Warfare Training Center (SMWDC)

**Reconstruction for an Autonomous Underwater Vehicle**

- 24127
  - The Dive-LD: A Transformational LDUUV for Advanced Subsea Applications
  - James Buelscher
    Director, Programs, Dive Technologies

**Computing: Progress Report**

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**ONI Presentation**

- 24093
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- 24176
  - CAPT Mike Egan, USN
    Branch Head, OPNAV N952

**ONI Presentation SMWDC Update**

- 24168
  - Timely Information for Maritime Engagements (Timely) Update
  - Aaron Kofford
    Program Manager, Defense Advanced Research Projects Agency

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**ONI Presentation**

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**Undersea Communications**

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**OPNAV N952 Update**

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<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker(s)</th>
<th>Affiliation</th>
<th>Location</th>
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<tbody>
<tr>
<td>11:00 – 11:30 am</td>
<td></td>
<td>24147 Continuous Integration and Continuous Delivery to Modernize Combat Systems Capability</td>
<td>Kelly Jones, Systems Architect, Cisco Systems</td>
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<td>24144 Hydron Multif-Domain (Marine, Ground, Air) Vehicle</td>
<td>Scott Kamphass, President and Chief Executive Officer, HyALTA Aeronautics, Inc.</td>
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<td>24162 Next-Generation Air ASW: Extended-Range DIFAR (ER-DIFAR) Development, Results, and Challenges</td>
<td>Kyle Patiesso, Chief Technology Officer, Sonobuoy Systems, Ultra Maritime</td>
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<td>11:30 – 11:45 am</td>
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<td>24131 Managing IUS Mobile Surveillance System Capabilities, The Transition from Today to Tomorrow</td>
<td>Donald Ringel, PE, MBA, Assistant Program Manager, Future Capabilities, PMS 486</td>
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<td>24148 Autonomous Systems at Sea: Implications for Future Undersea Networking Trends</td>
<td>Dr. Pedro Foraro, Engineer, Naval Information Warfare Center (NIWC) – Pacific</td>
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<td>24096 Argus: An Expeditionary Maritime Defense System</td>
<td>Christian Schumacher, Technical Program Manager, NUWC</td>
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<td>11:45 am – 12:15 pm</td>
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<td>24099 Modern Warfighter</td>
<td>Joshua Sadeck, Scientist, NUWC – Newport</td>
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<td>24116 ONI Presentation</td>
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<td>12:15 – 12:45 pm</td>
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<td>24142 PMS 485 Deployable Surveillance Systems Update</td>
<td>Susan LaHemb, Deployable Surveillance Systems PAFM (PMS 485)</td>
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<td>24128 Modular Undersea Effectors (MUSE)</td>
<td>John Dudinsky, Project Manager, Naval Surface Warfare Center (NSWC) – Panama City</td>
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<td>24088 Undersea Array Localization and Passive Thermometry from Acoustic Ambient Noise</td>
<td>Dr. Adrian Doran, Oceanographer, NUWC – Newport</td>
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<td>12:45 – 1:45 pm</td>
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<td>24093 IWS 5.0 Surface ASW Incorporation of Devescops Principles</td>
<td>Robert McNeal, Chief Engineer, Program Executive Office for IWS 5.0</td>
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<td>1:45 – 2:15 pm</td>
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<td>24116 ONI Presentation</td>
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<td>2:15 – 2:45 pm</td>
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<td>24175 Intelligent Cyber Threat Operational Planner For Under Sea (ICTOPUS)</td>
<td>Jeffrey Hoyle, Vice President, Federal Program, Scalable Network Technologies</td>
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<td>2:45 – 3:00 pm</td>
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<td>24113 Textured Piezoelectric at L3Harris Technologies</td>
<td>Dr. Lindsay Fusco-Castronie, Senior Research &amp; Development Ceramic Engineer, L3Harris Technologies</td>
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<td><strong>Combat Systems and Warfighter Performance</strong></td>
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<td>24102 Sensing, Navigation, and Communication</td>
<td>Henrik Schmidt, Professor, Mechanical &amp; Ocean Engineering, MIT</td>
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<td>24118 Use of Nickel Zinc Batteries in Undersea Application</td>
<td>Dr. Alexander Stimpson, Chief Scientist, ASSETT, Inc.</td>
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<td>3:30 – 4:00 pm</td>
<td><strong>Undersea Vehicles</strong></td>
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<td>24114 The Role of AI/ML in Large-Scale Heterogeneous Human-Machine Teaming</td>
<td>Dr. Benjamin Cooper, Senior Scientist, BAE Systems</td>
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<td>24119 Over the Horizon Targeting Using Autonomous Undersea Vehicles</td>
<td>CDR Ronald Carvalho, Jr, USN (Ret), FAST Labs, BAE Systems</td>
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<td>24163 Artificial Intelligence for Anti-Submarine Warfare Training: Jargon-Aware AI (JAWA)</td>
<td>Dr. Thomas Murray, Principal Investigator, Signal Systems Corporation</td>
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<td>24165 The Future of Undersea Fixed Surveillance Systems</td>
<td>Dr. Robert Barton, III, Manager, Advanced Capabilities, NUWC – Newport</td>
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<td>4:00 – 4:15 pm</td>
<td><strong>NETWORKING BREAK</strong></td>
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<td>4:15 – 4:45 pm</td>
<td><strong>Undersea Sensors</strong></td>
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<td>24174 Small Aperture Velocity Sensor (SAVS) Status Update</td>
<td>Jerald Mullison, Senior Scientist, Tekdyne</td>
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<td>24178 Presentation</td>
<td>Ballard Smith, Innovation Area Lead, Undersea Communications, MITRE</td>
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<td>24183 Network Switch Configuration Using Model-Based Systems Engineering (MBSE)</td>
<td>Matthew Ferrier, Vice President, BAE Systems</td>
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<td>4:45 – 5:15 pm</td>
<td><strong>Mine Warfare</strong></td>
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<td>24169 Virginia Class Evolution to Maintain Undersea Superiority</td>
<td>Brandon Ball, Program Representative, Electric Boat Corporation</td>
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<td>24173 LOW-FREQUENCY WIND-GENERATED NOISE</td>
<td>Christopher Stockinger, Student, Applied Research Laboratories, UT Austin</td>
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<td>5:15 pm</td>
<td><strong>CONFERENCE ADJOURNS</strong></td>
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