

# 12<sup>TH</sup> INTERNATIONAL MIW TECHNOLOGY SYMPOSIUM

## PLENARY SPEAKERS

Tuesday, 24 May

- 0800:** **RDML Rick Williams**  
- *Expeditionary & Mine Warfare, Naval Postgraduate School*
- 0810:** **VADM Ronald Route**  
- *President, Naval Postgraduate School*
- 0830:** **Major General Christopher Owens**  
- *Director of Expeditionary Division (N95)*
- 0900:** **CDRE Christopher A. Merwin**  
- *Commodore, EOD Group One*
- 0930:** **Dr. Jason Stack**  
- **Program Officer & Team Lead, Mine Warfare and Ocean Engineering, Office of Naval Research**
- 1000:** **Break**
- 1030:** **Mr. Edwin A. Stewart**  
- *Division Technical Director, Naval Surface Warfare Center, Panama City Division*  
**Presentation: "State of Mine Warfare"**
- 1100:** **Mr. Rand LeBouvier**  
- **General Dynamics Mission Systems/Bluefin Robotics**  
**Presentation: "The Phenomenology of Minehunting"**
- 1130:** **Mr. Todd C. "Charley" Davis**  
- **Theater Planner & Analyst, J5 Strategy, Policy and Plans**  
**HQ NORAD/USNORTHCOM**  
**Presentation: "USNORTHCOM Critical Seaport Initiative"**

**Technical Session I, Tuesday, May 24, 2016, 1:30 – 5:00pm**

	Laguna Grande A	Laguna Grande B	Laguna Grande E	Laguna Grande F	Laguna Grande G
<b>SESSION TITLE</b>	<b>Advanced Mine Hunting Sensors Dan Sternlicht NSWC, PCD</b>	<b>Program of Record Andy Fuller PMS 495</b>	<b>Environmental Considerations Ron Betsch NAVOCEANO</b>	<b>Countermine Dr. Brian Bingham Naval Postgraduate School</b>	<b>Unmanned Systems Research Dr. Doug Horner &amp; Sean Kragelund Naval Postgraduate School</b>
1330	Advances in Mine Hunting Technology: From SHADOWGRAPH to SAS <b>Dan Sternlicht NSWC PCD</b>	In-Service MCM Systems & Mines <b>Andy Fuller PMS 495</b>	Operational object drift predictions capabilities <b>Kelly R. Wood NAVOCEANO</b>	Payloads for Single-Sortie Mine Countermeasures <b>John Dudinsky NSWC PCD</b>	National Unmanned Shared Resources Center (NUSSRC) <b>Amanda Bobe NSWC PCD</b>
1400	Sensor Automation, Data Management, and Visualization Tools for MCM <b>Eric Tollefson PMS 403</b>	LCS MCM Systems & MIW C2 <b>Andy Fuller PMS 495</b>	Operational forecasting displacements of moored mines in ocean currents <b>David Lalejini NRL</b>	New AMCM Helicopter MCH-101 <b>Takeshi Asano Kawasaki Heavy Industries, Ltd.</b>	Sea Wasp targets the Underwater Improvised Explosive Device (IED) <b>Chris Lade Saab Seaeye</b>
1430	Upgrading the Navy's Principle Mine Hunting System <b>Robert Pohland Northrop Grumman Undersea Systems</b>	<b>MCM Systems Question Session and Open Discussion</b>	Operational forecasting displacements tools demo <b>Adam Seyfarth NRL</b>	Analytical Challenges to CONOPS Exploiting Technology Advances in Neutralization <b>Dr. Thomas Wood Raytheon Dr. Bryan Gorman JHU – APL</b>	Sensor-Based Motion Planning for Autonomous Vehicle Teams <b>Sean Kragelund Naval Postgraduate School</b>
<b>BREAK</b>					
1530	AQS-24 Sonar Upgrades for the Mine Hunting Unmanned Surface Vehicle (MHU) <b>Tyson Silengo Northrop Grumman Undersea Systems</b>	Unmanned Systems <b>Eric Tollefson PMS 403</b>	Process-Based Mine Burial Tactical Decision Aid <b>Scott Jenkins Scripts Institution of Oceanography</b>	Multi-Shot Mine Neutralization (MuMNS) <b>Chris Lade Saab Seaeye</b>	MIW DL & Neutralizer Projects <b>Paul Beery Naval Postgraduate School</b>
1600	The CNO High Velocity Edge to SAS Imaging Sensor Fleet Fielding <b>Terry Miller Advanced Acoustic Concepts</b>	LCS MCM Mission Package <b>CAPT Casey Moton PMS 420</b>	Forward Look Sonar Mapping for Intelligence Preparation of the Environment <b>Dr. Michael B. Revesz ARL, UT Austin</b>	Comparison of TSM sweep quality Measures <b>Dr. Henrik Claésson Swedish Defence Research Agency</b>	Utilizing AUVs for Close Proximity Operations in Complex Environments <b>Dr. Noel du Toit Naval Postgraduate School</b>
1630	High Speed, High Resolution SAS Survey for MCM <b>David Shea Kraken Sonar Systems Inc.</b>	<b>MCM Mission Question Session and Open Discussion</b>	Contact Management Applications using the Environmental Post Mission Analysis System <b>Bobbie Thompson NAVOCEANO</b>	Future Norwegian Unmanned Maritime Mine Counter Measures (MMCM) Concept <b>Morten Nakjem Norwegian Defence Research Establishment (FFI)</b>	AUV Navigation in Extreme Environments <b>Dr. Doug Horner Naval Postgraduate School</b>
<b>ADJOURN</b>					
<b>1700-1830 – Welcome Reception, Embassy Suites</b>					



**Technical Session II, Wednesday, May 25, 2016, 1:30 – 5:00pm**

	Laguna Grande A	Laguna Grande B	Laguna Grande E	Laguna Grande F	Laguna Grande G
<b>SESSION TITLE</b>	<b>Rapid Technology Insertion --Mark 18 Success Story Glenn Allen Grey Hawk Strategic</b>	<b>Mining Emily Medina ONR</b>	<b>Autonomy Dr. Warren Fox ONR</b>	<b>Unmanned &amp; Sensors Robert Hospodar ATGPAC, TORIS</b>	<b>UUV Systems Dr. Brian Bingham &amp; LCDR Kevin Gamble Naval Postgraduate School</b>
1330	Identifying the threat or challenge and establishing a requirement <b>CAPT Glenn Allen USN (Ret). Former CTF 52</b>	Overview <b>Terry Auberry Purvis</b>	UK R&D - Autonomy for MCM <b>Paul Doherty Defense Science and Technology Lab</b>	In situ Determination of Acoustical Target Attributes for Improved Mine Countermeasures <b>Stephen Lingsch Applied Physical Sciences</b>	The Technical Cooperation Program: Unmanned Maritime Systems Hells Bay Trials <b>Josh Weaver NSWC PCD</b>
1400	Finding a material solution at appropriate technology readiness level <b>Mr. Rick Nagle G2SS, Inc.</b>	Assessing US Navy Minefield Planning Tools through the Lens of Emerging Technologies <b>Sheri L. Williamson METRON</b>	Neptune: An interoperable autonomy framework for multi-asset planning, cooperation, and capability management - a status review, results and future plans <b>Pedro Patron SeeByte</b>	Development of a Synthetic Aperture Sonar Calibration Transponder <b>Brian O'Donnell GTRI</b>	MARLIN UUV - Detection, Localization and Classification of Offshore Structures and Mine Targets <b>Joe Cuschieri Lockheed Martin Mission Systems and Training</b>
1430	Connecting S&T and industry with the operators (Sailors) <b>Dr. Jason Stack Office of Naval Research, Code 32</b>	Joint Directed Attack Munition (JDAM) Feasibility Assessment for ASW and MIW <b>Dr. Don Brutzman Naval Postgraduate School</b>	Experimentation of high-level tactical autonomy on the CMRE MUSCLE System <b>Dr. Samantha Dugelay NATO Science and Technology Organization</b>	MK 18 Mod 2 UUV Sensor Payload CEA <b>LCDR Wade Hildebrand Naval Postgraduate School</b>	Mobile Anti-Submarine Training Target (MASTT) <b>TJ Racoosin NAVSEA PEOSUBS (PMS 399)</b>
<b>BREAK</b>					
1530	Connecting the Solution with the funding/resources <b>TBD</b>	Potential Requirements and Development Approach for an Advanced Maritime Mining Tactical Decision Aid (MMTDA) <b>Reynolds Monarch DWA</b>	Autonomy for Tactical Mine Hunting Utilizing Low-Frequency Broadband Sonar <b>Dr. Ben Dzikowicz NRL</b>	Advanced Robotic Systems Engineering Lab (ARSENL) / Swarm vs. Swarm Brief <b>Dr. Ray Buettner Naval Postgraduate School</b>	Enabling Parallel Detect to Engage <b>Sekhar Tangirala Lockheed Martin Mission Systems</b>
1600	Transitioning to a program of record <b>Ms. Heather Williams SSCPAC</b>	AUWS mission planning <b>Matt Bays NSWC PCD</b>	Advanced MCM Autonomous Vehicle Architecture: AVA <b>Josh Weaver NSWC PCD</b>		Tethered and Untethered Marine Vehicles for Expeditionary Warfare <b>James McFarlane International Submarine Engineering Ltd.</b>
1630	Sustaining the capability for global deployment <b>Mr. Chris Britt NSWC PC</b>	Next Generation Capability <b>Marc Eadie, NSWC PCD Joe Ortiz, SSCPAC</b>			Unmanned Underwater Vehicle Operations and Support Cost Analysis <b>Greg Miller Naval Postgraduate School</b>
<b>ADJOURN</b>					
<b>1830 – Reception: Taste of Monterey, 100 Cannery Row KK, Monterey, CA (Ticket Required)</b>					

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## PLENARY SPEAKERS

Thursday, 26 May

- 0830:**        **Jeff Kline**  
-    **Professor of Practice, Operations Research, Naval Postgraduate School**  
**Presentation: “Major Trends Found in a Decade of NPS Warfare Analysis”**
- 0900:**        **Dr. Ray Buettner**  
-    **Director, Consortium for Robotics and Unmanned Systems Education and Research (CRUSER)**  
-    **Associate Professor, Information Sciences**  
**Presentation: “Current CRUSER Initiatives”**
- 0930:**        **Jeff Smith**  
-    *President & CEO / Founder, Riptide Autonomous Solution*  
**Presentation: “Riptide UUV”**
- 1000:**        **BREAK**
- 1030 -1200:** **Leadership Panel**  
    ⌘ **ONR**  
    ⌘ **N95**  
    ⌘ **Industry**  
    ⌘ **NSWC**  
    ⌘ **SMWDC**