

TUESDAY, SEPTEMBER 22

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| 0830 | Call to Order
Mr. Bruce Spear, Chairman, NDIA Undersea Warfare Division |
| 0835 | Welcome
RDML Paul Bushong, USN, Commander Submarine Group TWO |
| 0840 | Introductions
Mr. Paul Normand, Conference Chairman |
| 0845 | Admiral Kirk Donald, USN
Director Naval Reactors |
| 0915 | VADM Jay Donnelly, USN
Commander Submarine Force |
| 0945 | VADM David Dorsett, USN
Director Navy Intelligence, CNO N2 |
| 1015 | Break |
| 1040 | RADM Bill Burke, USN
Director Navy Quadrennial Defense Review |
| 1110 | RADM Douglas McAneny, USN
Commander Submarine Force, U.S. Pacific Fleet |
| 1140 | Bronze Awards |
| 1200 | Lunch |
| 1330 | ASW Panel
Moderator: VADM Jim Fitzgerald, USN (Ret) <ul style="list-style-type: none">▶ RADM Frank Drennan, USN, Naval Mine and ASW Command▶ RADM Cecil Haney, USN, Director Submarine Warfare, CNO N87▶ RDML William Moran, USN, Commander Patrol and Reconnaissance Group▶ RDML(S) Jeffrey Harbeson, USN, N86F |
| 1530 | Break |
| 1550 | VADM Harry Harris, USN
Deputy Chief of Naval Operations for Communications Networks |
| 1625 | RADM Willy Hilarides, USN
Program Executive Officer Submarines |
| 1700 | Adjourn - Shuttle buses depart for hotels |
| 1900 | Clambake - Shuttle buses provided from hotels to Clambake |

WEDNESDAY, SEPTEMBER 23

0800 Call to Order
Mr. Bruce Spear, Chairman, NDIA Undersea Warfare Division

Introductions
Mr. Paul Normand, Conference Chairman

0805 RADM Steve Johnson, USN
Director Strategic Programs

0835 RDML Dave Johnson, USN
Naval Sea Systems Command 073

0905 Mr. Don McCormack
Technical Director Naval Undersea Warfare Center

0940 Break

1000 RDML Robert Girrier, USN
Naval Mine and Anti-Submarine Warfare Command

1030 Ms. E. Anne Sandel
Program Executive Officer Littoral Mine Warfare

1100 Dr. Andrew Erickson
Naval War College

1130 Keynote Address
Honorable Ray Mabus, Secretary of the Navy

1200 Closing Remarks and Adjourn for Lunch

WEDNESDAY, SEPT 23

1300	Aviation USW Bldg. 83, Room 328	C41 & Combat Systems Bldg. 474, Lewis Hall	Mine Warfare Bldg. 83, Room 327	Undersea Sensors I Bldg. 83, Basement B-40A	Undersea Sensors II Bldg. 164, Dealey Center	Undersea Warfare Vehicles Bldg. 499, Bledsoe Hall	Full Spectrum Warfighter Capabilities Bldg. 83, Room 319
	Call to Order Mr. David Nelson The Boeing Company Technical Committee Chairman	Call to Order Mr. Paul Rosbalt Raytheon Company Technical Committee Chairman	Call to Order Mr. Eric Holmes Lockheed Martin Corporation, Technical Committee Chairman	Call to Order Mr. Jose Rio Lockheed Martin Undersea Systems, Technical Committee Chairman	Call to Order Mr. Juergen Keil Rite Solutions Technical Committee Deputy Chairman	Call to Order CAPT Rich Talipsky, USN (Ret) SEA CORP Technical Committee Chairman	Call to Order Dr. Jerry Lamb Session Chairman Naval Submarine Medical Research Laboratory
1335	NAVAIR ASW Sea Shield CAPT Larry Pugh, USN PMA 264	IWS 5 Update CAPT Charles Davis, USN PEO IWS 5, Undersea Systems	Mine Warfare Fleet Perspective RDIML Bob Girner, USN Vice Commander, NMAWC	Submarine Acoustic Systems Program Office (PMS 401) Update CAPT Richard Nicklas, USN PMS 401	Deep Water Active Distributed System Mr. Herbert Shauger, Spartan Electronics	Undersea Weapons Systems Program Brief RDIML(Sel) Thomas Wears, USN Undersea Weapons, PMS 404	Achieving Fleet Needs for Warfighter Performance CAPT Kenneth Swan, USN Submarine Learning Center
1400	USW-DSS Demo	USW-DSS Demo					
1405	Multi-Mission Helo Program Plans CDR Ouellette PMA 299	Submarine Combat and Weapon Control System Program Office (PMS 425) Update CAPT David Hahn, USN PEO Submarines	MCM Programs Overview CAPT Mark Rios, USN N852	AN/SQ-89A(V)15 Undersea Warfare System Improvements with Advanced Capabilities Build 09 (ACB-09) Mr. James Day, PEO IWS	Enabling Next-Generation Power and Data Distribution Networks for Undersea Missions Mr. Joshua Hensen, Navy Facilities Engineering Service Center, Mr. Joe Conway, Antron; Mr. William Traganza, PMS 485	Electric Propulsion for Torpedoes Dr. Jay Martin and Dr. William Zierke, PSU ARL	Achieving Resilience in Submarine Command Decision Making Teams Dr. Jan Cannon-Bowers University of Central Florida
1435	P-8A Program Update Mr. Tom Kreppel PMA 290	PEO IWS 5E ASW C2 Systems Program Update Mr. Jean Feuillet, Naval Sea Systems Command	MIW Sponsor's Perspective Ms. Donna Carson-Jelley PMS 495	Advanced Processing Builds Recent/Pending Focus Areas Mr. Peter Scala, PEO IWS 5A	Shallow Water Surveillance System (SWSS) Analysis of Alternatives Mr. Bill Lewis, JHU APL	Undersea 40mm Supercavitating Gun Mr. Lance Benedict, Mr. Antonio Paulic, Mr. Steven Kim, and Mr. Paul Wallman, Lockheed Martin MS2	Improving Human Performance through Operational Risk Management for Navigational Mishaps CAPT Ron Steed, USN (Ret) UpScope Consulting
1505	MPRF Community of Interest & Support to Netted ASW Solutions Mr. Joseph Willette, U.S. Navy	C41 Architecture Supporting Conduct of Defensive and Offensive Joint ASW Mr. Bill Traganza, Mr. Greg Miller, and Mr. Matt LeTourneau, PEO LMW	Modernization of the MCM 1 Avenger Class Capabilities Ms. Alicia Leslie and Mr. Thomas Creswell, NSWC Panama City	Overview of the Advanced Development Office Mr. Joseph Johnson, PEO IWS 5A	VIRGINIA Block IV - Enabling Submarine Deployed Sensor Networks Ms. Catherine Price and Ms. Jennifer Panosky, General Dynamics Electric Boat	Compact Rapid Attack Weapon (CRAW) Development for the Common Very Lightweight Torpedo (CVLWT) Program Update Ms. Amy Blake, Mr. Richard Jones and Mr. Robert Colbert, PSU ARL	Human Performance Based Engineering Design Dr. Michael Qin Naval Submarine Medical Research Laboratory
1535	Break	Break	Break	Break	Break	Break	Break
1600	TBD	Naval Open Architecture Status and Way Ahead Mr. Nicholas Guertin, PEO IWS 7B	Naval Oceanographic Office Perspective CAPT Brian Brown, USN Naval Oceanographic Office	IWS 5 Update CAPT Charles Davis, USN PEO IWS 5A Advanced Development Office	Enhanced A Comms Physical Layer for Low Probability of Detection Undersea Networking Mr. Jason Rudzinsky, Applied Physical Sciences Corp.	ASDS Battery Fire - Learning from our Setbacks CAPT David Duryea, USN SOF Undersea Mobility Program Office (PMS 399), Mr. Brian Pelletier, and Mr. Todd Bowden	Watchstanding and Submariner Performance LT Matthew Keller, USN Naval Submarine Medical Research Laboratory

WEDNESDAY, SEPT 23

1630	<p>Aviation USW <i>Bldg. 83, Room 328</i></p> <p>ASW Performance Analyses for a Small Tactical UAV Carrying a Miniaturized MAD Sensor <i>Mr. Joseph Natzale and Mr. Tomas Bradley, Boeing</i></p>	<p>C4I & Combat Systems <i>Bldg. 474, Lewis Hall</i></p> <p>Advanced Processing Builds Recent/Pending Focus Areas <i>Mr. Peter Scala, PEO IWS 5A</i></p>	<p>Mine Warfare <i>Bldg. 83, Room 327</i></p> <p>Maritime Homeland Defense/Security - Preparing for Response <i>Ms. Bobbie Thompson, Mr. Ronald Betsch, and Mr. George Croy, Naval Oceanographic Office</i></p>	<p>Undersea Sensors I <i>Bldg. 83, Basement B-40A</i></p> <p>Distributed Nettetted Sensors 09-1 Sea Test <i>Ms. Meg Stout, PEO IWS 5A</i></p>	<p>Undersea Sensors II <i>Bldg. 164, Dealey Center</i></p> <p>Riptide-Lite: Innovative Approach to Rapid Prototyping <i>Ms. Malgorzata Machate, NUWC</i></p>	<p>Undersea Warfare Vehicles <i>Bldg. 499, Bledsoe Hall</i></p> <p>RILS: Man-portable UUV for Swimmer Defense in Port <i>Dr. Rick Vosburgh and Mr. Ryan Moody, iRobot Maritime Systems</i></p>	<p>Full Spectrum Warfighter Capabilities <i>Bldg. 83, Room 319</i></p> <p>Psychological Screening for Submarine Duty <i>Mr. James Whanger, Naval Submarine Medical Research Laboratory</i></p>
1700	<p>MPRA Common Acoustics <i>Mr. Daniel Brown and Mr. Randall Mosten, Lockheed Martin MS2</i></p>	<p>A New Addition to the Fleet USW Sensor Spectrum: Periscope Detection Radar <i>Mr. James Gallemore, 3 Phoenix</i></p>	<p>Change Detection for Mine Countermeasures <i>Mr. James Hammack, Mr. Chris Coward, Ms. Bobbie Thompson, and Dr. Kevin Mahoney, Naval Oceanographic Office</i></p>	<p>Maritime Surveillance Systems: Next-Generation Update <i>Mr. William Traganza, NAVSEA PMS 485, and CDR Joseph Conway, USN (Ret), Amtron Corp.</i></p>	<p>Performance Surface - A New approach to ASW Modeling <i>Mr. Edward Gough, Mrs. Pamela McDowell, Mr. Steven Dennis, and Mrs. Josette Fabre, CNMOC</i></p>	<p>Cyclone Engine and its Application to Powering UUVs, Swimmer Vehicles, and Torpedoes <i>Mr. Steve Lebischak and Dr. Philip Myers, Advent Power Systems</i></p>	<p>Neurophysiologic Correlates of Team Performance <i>Dr. Ron Stevens, The Learning Chameleon; Ms. Chris Berka, Advanced Brain Monitoring; Ms. Kastley Marvin, Naval Submarine Medical Research Lab</i></p>
1730	<p>Adjourn</p>	<p>Adjourn</p>	<p>Adjourn</p>	<p>Swiper: MEMS Technology for Head Window Clearing <i>Dr. Walter Hernandez, WCH Technologies; Dr. Rick Vosburgh, iRobot; Dr. Nan Jokerst, Duke Univ; Mr. John Abrahams, Univ of MD</i></p>	<p>Acoustic Cloaking: Next-Generation Technology and Prospects for Deployment <i>Dr. Jeffrey Cipolla, Weidlinger Associates Inc.</i></p>	<p>Development of a Li-Seawater Battery for Increased Persistence of Autonomous Undersea Sensors and Vehicles <i>Dr. Charles Patrissi and Mr. Christian Schumacher, NUWC Div., Newport</i></p>	<p>Adjourn</p>
1800				<p>Adjourn</p>	<p>Adjourn</p>	<p>Adjourn</p>	

0800	<p>Aviation USW Bldg. 83, Room 328</p> <p>Call to Order Mr. David Nelson The Boeing Company Technical Committee Chairman</p>	<p>C4I & Combat Systems Bldg. 474, Lewis Hall</p> <p>Call to Order Mr. Paul Rosbalt Raytheon Company Technical Committee Chairman</p>	<p>Mine Warfare Bldg. 83, Room 327</p> <p>Call to Order Mr. Eric Holmes Lockheed Martin Corporation Technical Committee Chairman</p>	<p>Undersea Sensors I Bldg. 83, Basement B-40A</p> <p>Call to Order Mr. Jose Rio Lockheed Martin Undersea Systems Technical Committee Chairman</p>	<p>Undersea Sensors II Bldg. 164, Dealey Center</p> <p>Call to Order Mr. Juergen Keil Rite Solutions Technical Committee Deputy Chairman</p>	<p>Undersea Warfare Vehicles Bldg. 499, Bledsoe Hall</p> <p>Call to Order Mr. Tom Sherman JHU APL Technical Committee Deputy Chairman</p>
0805	<p>Maritime Patrol Resonance Aircraft (MPRA) USQ-778B Acoustic Processor Technical Refresh (APTR) Operator Machine Interface Mr. Glen Sharpe, Lockheed Martin</p>	<p>ASW Systems Engineering - Common ASW Data Model and Strategy Alignment Ms. Colleen Cannon, PEO IWS</p>	<p>TBD</p>	<p>Vector Sensor Array Gain Measurements from the AUTECH 08 Sea Trial Dr. John Ianniello, Dr. Jennifer O'Donnell, and Mr. Robert Barton III, SAIC</p>	<p>SSEMP Operator Performance Assessment to SOQ-89(V)15 APB 09 (ACB 09) Ms. Sarah Edwards and Mr. Ken Andersonowitz, NUWC Div., Newport</p>	<p>Unmanned Maritime Vehicles Program Brief CAPT Paul Siegrist, USN Unmanned Maritime Systems Program Office (PMS 403)</p>
0815	<p>USW-DSS Demo</p>	<p>USW-DSS Demo</p>	<p>USW-DSS Demo</p>	<p>USW-DSS Demo</p>	<p>USW-DSS Demo</p>	<p>USW-DSS Demo</p>
0835	<p>Reliable Packet Communication for Distributed Netted Sensors & Maritime Patrol Aircraft Mr. Brian Rehner, Ultra Electronics</p>	<p>Results of the First Use of the Acoustic Multi-Static Active Interoperability Simulation (AMASIS) Tool Mr. John Curtis and Mr. Douglas Backes, Maritime Surveillance Systems, PMS 485</p>	<p>Impact of Single Crystal Piezoelectric Material on a Mind Identification System Utilizing Cymbal-based Source Technology Dr. James Tressler, Dr. Brian Houston, and Dr. Thomas Howarth, Naval Research Laboratory</p>	<p>Coherent versus In-Coherent Averaging in a Passive Broadband Detection System Dr. Robert LaTourrette, NUWC Div., Newport</p>	<p>Software Reuse in the PEO IWS5 Common Active Software Baseline Mr. Mark Donnell, ARL UT</p>	<p>Low Risk, Large Diameter UUV Mr. Jeffrey Smith and Mr. Ross Lindman, Bluefin Robotics</p>
0905	<p>Multistatic Active Coherent (MAC) Program Status Mr. Jeff Davison Lockheed Martin</p>	<p>The Impact of Synthetic Virtual Environments on Combat System Design and Operator Performance Dr. Yvonne Maszkowski, NUWC Div., Newport</p>	<p>Automatic Target Detection in Side Scan Sonar Ms. Rebecca Quintal, SAIC</p>	<p>Initial 3D Auditory Interface for Submarine Sonar Systems: Paired with Detailed SAMS Tasks Ms. Margaret Beecher and Mr. Daniel Lawrence, JHU APL</p>	<p>CW Processing Improvements for Active Clutter Reduction Ms. Tammy Kolarik, JHU APL</p>	<p>Sea Stalker: Operations in Theater Mr. Michael Paul and Dr. Charles Zentner, PSU ARL</p>
0935	<p>AN/SSQ-125 High Power, Coherent Source Status Mr. Raymond Deno, Undersea Sensor Systems</p>	<p>Acoustic Performance Surface Fusion: Multi-Sensor versus Multi-Threat Visualization in C4I Systems Mr. Scott Ferguson and LT Timothy Campo, USN, Naval Oceanographic Office</p>	<p>LCS Mine Warfare Mission Modules CAPT Mike Good, USN PMS 420</p>	<p>Future Submarine Navigation Architecture Mr. Hugh Rice and Mr. Charles Reibeling, Lockheed Martin MS2</p>	<p>Adaptive Beamforming for Active Sonar Mr. Walter Allensworth, Dr. Robert Zeskind, Mr. David Goffe, and Mr. Travis Cupruk, Adaptive Methods</p>	<p>Unmanned Surface Vehicle Weaponization Mr. Samuel Hester, NUWC Div., Newport</p>
1005	<p>Break</p>	<p>Break</p>	<p>Break</p>	<p>Break</p>	<p>Break</p>	<p>Break</p>
1015	<p>USW-DSS DEMO</p>	<p>USW-DSS DEMO</p>	<p>USW-DSS DEMO</p>	<p>USW-DSS DEMO</p>	<p>USW-DSS DEMO</p>	<p>USW-DSS DEMO</p>
1030	<p>Interoperable Multistatic Active Working Group (MSA WG) Status Report Mr. Doug Backes, NAVAIR</p>	<p>Submarine Controlled Scan Eagle UAS and Onboard Tomahawk Missile Dynamic Strike Execution Experiments during Exercise Talisman Saber 2009 Mr. Joseph Root and CDR James Beiz, USN, Allion Science & Technology</p>	<p>Unmanned Maritime Vehicles CAPT Paul Siegrist, USN PMS 403</p>	<p>Realizing Reliable Towed Arrays, TB-23 Technology Insertion Initiatives Mr. John Jamieson, III and Mr. Sylvan Caplan, 3 Phoenix</p>	<p>Low and High-Frequency Bottom Loss and Bottom Backscatter Data Base Upgrades Mr. David Harvey, Dr. Timothy Ruppel, and Dr. Jorge Novarini, Naval Oceanographic Office</p>	<p>Maritime Open Architecture Autonomy (MOAA) Dr. Michael Ricard, Ms. Emily Braunstein, and Mr. Joel Perry C.S. Draper Laboratory</p>

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1100	<p>Aviation USW Bldg. 83, Room 328</p> <p>Interoperable Multistatic Active Working Group (IMSA WG) Status Report Mr. John Curtis</p>	<p>C4I & Combat Systems Bldg. 474, Lewis Hall</p> <p>Submarine Imaging Technology and Future Initiatives CAPT Christopher Scofield, USN, Naval Sea Systems Command PMS 435</p>	<p>Mine Warfare Bldg. 83, Room 327</p> <p>Unmanned Surface Vehicle Mine Sweeping Mr. David DeMartino, ITT</p>	<p>Undersea Sensors I Bldg. 83, Basement B-40A</p> <p>The Impact of Calibration on Light Weight Wide Aperture Array (LWMAA) Performance: Seatest Results for the VIRGINIA Class Platforms Ms. Bonnie Wardle, Mr. Robert Bernecky, Mr. Barry Bosworth, Mr. Evangelos Giannopoulos, and Mr. Ralph Lamp, NUWC Div., Newport</p>	<p>Undersea Sensors II Bldg. 164, Dealey Center</p> <p>Design Considerations for High Search Rate Sonar Systems Mr. Ira Cohen, Mr. Mark Vaccaro, Ms. Jenna Drummond, and Mr. Michael Rosario, Naval Oceanographic Office</p>	<p>Undersea Warfare Vehicles Bldg. 499, Bledsoe Hall</p> <p>Miniature Capsule for Undersea Data Exfiltration Mr. Jason Ruczynski, Applied Physical Sciences Corp.</p>
1130	<p>EFS Replacement Technology for Sonobuoys Mr. Leslie Smith, SEA CORP</p>	<p>Communications at Speed and Depth Increment 1 Mr. Joseph Blais, Lockheed Martin Slipican</p>	<p>Unmanned Sea Surface Vehicle Three Dimensional Sonar Mission Package for Mine Detection and Classification, IED Detection and Classification and Port and Harbor Surveillance Dr. William Woodward, Mr. Milan Stamenkovich, Mr. Will Sokol, and Mr. Rold Hansen, UrsaNav</p>	<p>Portable Undersea Training Range (PUTR) Ms. Debra GreenHaigh, Mr. Edmund Sheffield, and Mr. Robert Reid, NUWC Div., Newport</p>	<p>Wideband Multimode Sensor Mr. Larry Clayton and Mr. Ben Hillery, ITT Corp.</p>	<p>Functional Assessment of UUV Missions Dr. Jeffrey Weinschenk, PSU ARL</p>
1200	<p>Box Lunch</p>	<p>C4I Technical Committee was held Monday Box Lunch</p>	<p>Technical Committee Working Lunch</p>	<p>Technical Committee Working Lunch</p>	<p>Box Lunch</p>	<p>Technical Committee Working Lunch - Brief of UUV Study "State Practice in Unmanned Systems Technology" and Discussions on "Operationalizing UUVs from Submarines" CAPT Rich Talipsky, USN (Ret); Mr. Jeff Smith, Bluefin Robotics; CAPT Lorin Selby, USN, SEA 071 PMS 394</p>
1300	<p>Call to Order Mr. David Nelson The Boeing Company Technical Committee Chairman</p>	<p>Call to Order Mr. Paul Rosbolt Raytheon Company Technical Committee Chairman</p>	<p>Call to Order Mr. Eric Holmes Lockheed Martin Corporation Technical Committee Chairman</p>	<p>Call to Order Mr. Jose Rio Lockheed Martin Undersea Systems Technical Committee Chairman</p>	<p>Call to Order Mr. Juergen Keil Rite Solutions Technical Committee Deputy Chairman</p>	<p>Call to Order Mr. Jim Griffin NUWC Div, Newport</p>
1305	<p>Analysis of the P8A and P3 Source/Receiver Relocation Algorithms using Data from LWAD-05 Data Dr. Chris Walter, Boeing</p>	<p>Submarine Communications Advances and Technical Challenges CAPT Dean Richter, USN, CAPT Andy Wilde, USN and Mr. Michael Hutter, PEO C4I PMW 770</p>	<p>Submarine Operations in Mined Waters Mr. Thomas Wood, Dr. William Browning, Dr. Paul Centore, and RADMI David Gove, USN (Ret), Applied Mathematics Inc.</p>	<p>Compact, Broadband Naval Sonar Applications using Single Crystal Technology Dr. Wesley Hackenberger and Dr. Jun Luo, TRS Technologies</p>	<p>Harbor Shield: Inspection of Vessels Below the Waterline Dr. Lynn Faulkner, Mr. Richard Granger, Ms. Pamela Hurst, and Dr. Don Steinbrecher, Battelle</p>	<p>Undersea Defensive Systems Program Brief CAPT David Krapp, USN Undersea Defensive Systems Program Office (PMS 415)</p>

1315	Aviation USW Bldg. 83, Room 328	C4I & Combat Systems Bldg. 474, Lewis Hall	Mine Warfare Bldg. 83, Room 327	Undersea Sensors I Bldg. 83, Basement B-40A	Undersea Sensors II Bldg. 164, Dealey Center	Undersea Warfare Vehicles Bldg. 499, Bledsoe Hall
1335	UAVs and Submarine Detection Mr. Peter Thomas and Mr. Timothy Barnard, NSWC Carderock	USW-DSS Demo ADCAP Preset Optimization Mr. William Crossdale, Mr. Michael Twarog, and Mr. Craig Sherwin, Raytheon IDS	Distributed Offboard Sensors to Provide Time Space Position Information for Submarine ASW and MIW Mission Assessment Mr. Douglas Ray, Mr. Jeffrey Holland, and Mr. Daniel Jenson, NUWC Division Keyport	Single Crystal Vector Sensor for Towed Array Applications Mr. David Baird and Mr. James Powers, Progeny Systems Corporation	Benthic Microbial Fuel Cell Powered Vector Sensor Mr. Frank McNeilly, Mr. Daniel Thivierge, Ms. Suzanne Houde, and Mr. Joshua Hansen, NUWC Div., Newport	Recent Technology Demonstrations in Surface Ship Torpedo Defense Mr. Russell Jeffers and Mr. Bruce Gallemore 3 Phoenix
1405	Submarine UAS - Over the Horizon ISR Mr. Peter Harrigan, NUWC Div., Newport	InfoSphere Streams: High Performance Computing System to Ingest, Analyze and Correlate Information from Thousands of RT Sources Dr. Timothy Pavlick, IBM	Expendable Mine Neutralization System Mr. William Murphy Lockheed Martin	Wide-Band Single Crystal Acoustic Communications Transducer Dr. Harold Robinson, Dr. Thomas Glasse, and Ms. Susan Cochick, NUWC Div., Newport	Flexural Single Crystal Projector for Expeditionary Swimmer Defense Applications Dr. Fletcher Blackmon, Mr. Harold Robinson, and Mr. James Pollock, NUWC Div., Newport	Littoral Combat Ship Escort and Torpedo Defense Study Ms. Joan Turner, NUWC Div., Newport
1435	Submarine Littoral Defense System Technology Overview Mr. James Coleman, Mr. Michael Woods, and Mr. Thomas Utterback, NUWC Div., Newport	Command and Control Engineering Measurement Program (C2EMP) Ms. Megan Moundalexis, Dr. Jennifer Ockerman, Mr. Arthur Croucher, and Ms. Margaret Dean, JHU APL	Target Detection in Shallow Water Environments - MH Force Multiplier? CPO Rene Oslas, USN (Ret), Mr. Marc Parent, and Mr. Peter Run-ciman, L-3 Communications Klein Associates Inc.	Piezo-Crystal Technology for Vector Sensors Dr. James McConnell, Mr. Scott Jensen, Mr. Edward April and Dr. Bruce Abraham, Applied Physical Sciences Corporation	ONR Maritime WMD Detection Program Mr. Peter Morrison, Office of Naval Research	Next Generation Countermeasure Engineering and Design Mr. Richard Shell, Ms. Giori Kith, and Mr. Roderick Ayers, NUWC Div., Newport
1505	Break	Break	Break	Break	Break	Break
1515	USW-DSS Demo	USW-DSS Demo	Break	Break	Break	Break
1530	ALFS - The Game Changer - First Deployment Results Mr. Robert Raposo Raytheon	Virtual NUWC - Innovative Application of Virtual World Technologies to Undersea Warfare Mr. Douglas Maxwell and Mr. Steven Aguilar, NUWC	Improving Positioning and Maneuvering Accuracy of MCM Platforms Operating in the Littorals in Support of Amphibious Operations Mr. Thomas Zysk, Technology Systems Inc.	Three Elements Single Crystal Trioid Transducer Array Dr. John Butler, Mr. Alexander Butler, Mr. Edward Guida, and Mr. Paul Clifford, Image Acoustics Inc.	2009 Nonacoustic ASW Experiment E-Field Test Results Dr. Michael Larsen, Information System Laboratories	Portable and Reconfigurable Universal Payload/Vehicle Storage, Launch and Recovery System Mr. Douglas Taylor, Dr. Peter Hardro, and Mr. Lou Krue, Northrop Grumman Shipbuilding
1600	Adjourn	Use of Virtual Worlds for Experimentation Mr. Philip Monte and Mr. Douglas Maxwell NUWC Div., Newport	Physics-based Modeling of Targets in Littoral Environments Dr. Paul Reynolds, Dr. Jeffrey Cipolla, Dr. Paul Barbone, and Dr. Gonzalo Feljoo, Weidinger Associates Inc.	Acoustic Analysis of a Prototype Single-Crystal Piezoelectric Torpedo SONAR Array Ms. Lanie Williams, NUWC Div., Newport	Materials and Device Modeling to Reduce Cost and Time to Exploit Relaxor Piezoelectric Single Crystals in Navy SONAR Transducers Mr. Barry Doust, Mr. Timothy Mudari, Mr. Paul Reynolds, and Mr. Jason Moutaner, Materials Systems Inc.	Future Launching Systems Mr. John Sparrer and Mr. Scott Eckes, Northrop Grumman Shipbuilding
1630	Adjourn	Adjourn	Trial Kondari - Demonstration of AUVs in Port Security CAPT Rand LeBouvier, USN (Ret), Bluefin Robotics	Single Crystal Cylindrical Transducers and their Potential Impact on Acoustic Moderns and Mobile Counter Measures Dr. David Brown, Btech Acoustics LLC	Performance Impact of using Single Crystal for a Forward Looking Mine-Hunting Sonar Mr. Michael Zamestke, Mr. Harold Robinson, and Mr. Robert Janus, NUWC Div., Newport	C02 Scrubber Technology - Advancing Submarine Technology via Interdepartmental (DoN-DoE) Leveraging Mrs. Audrey Bauer, NSWC Philadelphia, CAPT Mario Bagaglio, Jr., USN (Ret), and Dr. Glenn Fryxell, Pacific Northwest Laboratory
1700			Adjourn	Adjourn	Adjourn	Adjourn