TECHNICAL SESSIONS

WEDNESDAY

7:00 am	**Registration** Dealey Center Auditorium

7:00 am	**Networking Breakfast** Dealey Center Outside Plaza

	Aviation & Combat Systems Glen Sharpe **Session Chair**	**C4I** Dr. Robert Zarnich **Session Chair**	**Dealy**	**Undersea Sensors** Joe Cushieri **Session Chair**	**Undersea Vehicles 1** Chuck Fralick **Session Chair**	**Undersea Vehicles 2** Brian McKeon **Session Chair**	**Mine Warfare** Kevin Hagen **Session Chair**
	Building 83 Room 318	Building 83 Room 319	Dealy Theater	Building 84 Room 104	Building 83 Room 317	Bledsoe Hall	Building 84 Room 106
8:00	**Shawn Slade** U.S. Navy		1871311 Undersea Communications and Integration Program Office, PMW 770 **CAPT Dave Kuhn, USN** **Jon Wrinn**	1857008 A New Sensing System For The Arctic **D. Benjamin Reeder** Naval Postgraduate School **John Joseph** Naval Postgraduate School	1843235 UUV/ROV Payload Needs for SSW Applications **Walter Smith** Advanced Undersea Systems (PMS394) **Zachary Seither** Advanced Undersea Systems (PMS394)	1866673 DARPA's Ultra-reliable Unmanned Surface Vessel: Defiant **Gregory Avicola** DARPA / TEC Solutions	Development of New Underwater Explosives and Warheads **Daniela Wagus** NSWC Indian Head
8:30 am	**Shawn Slade** U.S. Navy		1856473 IWS 5.0 Program Status & Plans **Leroy Mitchell** IWS 5.0	1854914 PMS 485 Deployable Surveillance Systems Update **Susan LaShomb** PEOUWS PMS485E **Aaron Bengston** NUWCKPT Detachment San Diego	1880019 Manta Ray and Goblin Program Updates **Kevin Sloan** DARPA	1853645 Does Swarming Make Sense for Underwater Combat Power? **Peter Drewes** SAIC	1872444 NSWC Panama City Division Mine Warfare Training Shape Support Options **Brian Brock** NSWC Panama City
9:00	Virtual Ocean Acoustic Simulation & Stimulation **Sara Groth** Advanced Acoustic Concepts, LLC		Russian Seabed Warfare Capabilities ONI	PMS 485's Mobile Surveillance Systems Future Capabilities **Donald Ringel** NAVSEA PEO UWS PMS 485 **Rabon Cooke** NAVSEA PMS 485	1880019 Manta Ray and Goblin Program Updates Continued **Kevin Sloan** DARPA	1875655 Engaging the Commercial Industry To Shape Autonomy For Security Needs **Matthew Chapman** Oceaneering	1874435 Single Sortie Detect to Engage **Jeff Williams** Ocean Aero

Time							
9:30	1834471 Explainable Readiness Predictions With The Digital Aviation Readiness Technology Engine **Jamal Rorie** Naval Information Warfare Center Pacific		China Seabed Warfare Capabilities ONI	1858426 DARPA Banyan Program **Katherine Woolfe** DARPA **David Pfundstein** DARPA	1864903 Yellow Moray Torpedo Tube Launch and Recovery and REMUS 620: Critical Enablers for the Subsea Battlespace **J. Carl Hartsfield** HII Unmanned Systems **Adrian Gonsalves** HII Mission Technologies	1861764 Environmentally Aware Intelligent Navigation for Unmanned Underwater Vehicles **Nathaniel Mack** Penn State Applied Research Laboratory	Mining and Mine Countermeasures Acquisition Portfolio Update **Robert Dellsy** Mine Warfare Program Office (PMS 495)
10:00 am	**Networking Break** Dealey Center Outside Plaza						
10:30 am	1864934 ASW Using Nontraditional ASW Air Platforms **Rob Kunz** RDA, Inc. **Ron Hidde** RDA, Inc.	1831556 Anomaly Detection Algorithms with Sensor Data from Modern Military Platforms **Dean Lee** NIWC Pacific **Jamal Rorie** Naval Information Warfare Center Pacific	1854512 SSN AUKUS Combat System – The Path to A Trilateral, More Agile Future **CAPT Kevin Moller, USN** U.S. AUKUS A&I office **Pascal Gangon** Australian Submarine Agency (ASA)	1851007 Submarine Sensor System Development **Rich Arnold** PEO IWS 5A	1877605 The Slocum Sentinel Glider – Expanded Capabilities for Enhanced Missions **Thomas Altshuler** Teled	1875698 Harbor and Critical Infrastructure Protection is a Growing Concern Adversaries Ability to Apply Subsea Effects Will Grow **Matthew Chapman** Oceaneering	1867897 Underwater and Seabed EOD **Amanda Bobe** ONR32
11:00 am	1848141 Digital Electronics Systems Engineering (DESE) Return on Investment (ROI) Calculation Methods for Major DoD Platforms **Steve Carslon** Cadence **James Chew** Cadence Design Systems	1869053 The Electronic Guard Book (E-Guard): A tool for Expediting Submarine Escape Time Calculations **Jeffrey Bolkhovsky** Naval Submarine Medical Research Laboratory	1853768 Combat Systems Improvements to ASW Systems for Surface and Submarine Platforms **Rich Arnold** PEO IWS 5A	1856518 ONR Anti-Submarine Warfare S&T Overview **Michael Vaccaro** Office of Naval Research **Tracey Fischer** ONR	1864937 Increasing Submarine Capability with Minimal Increases in Submarine Size **Brian Pering** Huntington Ingalls Industries Newport News Shipbuilding	1880022 Innovating in Submarine Construction and Maintenance **Kevin Sloan** DARPA	1872625 Mining Improvements to Increase Operational Agility **Andrew Blair** NSWC PCD
11:30 am	1867443 Jargon Aware Artificial Intelligence for Anti-Submarine Warfare Training **Thomas Murray** Signal Systems Corporation	1870209 C2 Considerations for Theater Mine Warfare Sustainment using Low-Profile Vessels (LPVs) **Don Brutzman**	Chinese and Russian Submarine Platforms Update ONI	1858473 ONR Code 32 ASW S&T Future Roadmap **Tracey Fischer** ONR **Michael Vaccaro** Office of Naval Research	1854223 Programming by Demonstration for Dual Arm Manipulation **Kelly Sprehn** Draper	1840135 Insights into Autopilot Design for Undersea Vehicles Using Nonlinear Control Theory **Daniel Kustaborder** The Applied Research Laboratory	1848125 As Synthetic Aperture Sonar in MCM Operations Becomes Tactically Common Then Contact Management Becomes A Challenge Given The Level of Detail Allows Detecting Virtually Every Object On The Sea Floor. **Terry Miller** AAC
12:00 pm	**Networking Lunch** Base Gymnasium						
1:00 pm	PMS 408	1856019 400 ft At-Sea Antenna for Expanded Communications	Russian SSN / SSGN Ops and Tactics (Sonobuoy Evasion Emphasis)	1848145	1861186 Advancing the Undersea Fight with Lethal Uncrewed Undersea Vehicles	1864193	Mine Countermeasure Mission Module Program Update

Time						
	Gregory Niehaus RDA, Inc.	ONI	Operational Hold Time Performance Against High-End Peer Submarines during Out of Area Deployments **Jeffrey Cares** Alidade Incorporated	(Update on Extra Large Uncrewed Undersea Vehicle Capability and CONOPS) **Brian Quarles** The Boeing Company, Maritime and Intelligence Systems **Brian Grubel** The Boeing Company, Maritime and Intelligence Systems	Insight: A Foundation for Undersea Vehicle Introspective Health Management (IHM) **Mark Shanks** Metron, Inc.	**Ed Sujecki** LCS Mission Modules Program Office (PMS 420)
1:30 pm	PMS 408	1832207 Enhancing Machine Learning Model Cross-Device Applicability to Capture Encryption Keys from Power Expenditure **Ian Garrett** Virginia Tech	Russian SSN / SSGN Ops and Tactics (Sonobuoy Evasion Emphasis) Continued ONI	1861824 Inertial Navigation System Inspection and Detection of Evolving Roles (INSIDER) **Jamie Winterton** Boston Fusion Corporation **Julia Mertens** Boston Fusion Corporation	1876800 TALON: Torpedo Tube Launch ROV **John Pfeifler** Lockheed Martin **Matt DeLuca** Lockheed Martin	1854067 Project Mazu-Applications of Subsea Pulsed Power **Nate Gonzales** General Dynamics Mission Systems	1861223 Impact of a "Combined Arms" Approach to Enabling the Submarine Force's Operational Tasking **Jim Clancy** JHU/APL
2:00 pm	1827177 Data Distribution Service (DDS) Use in Undersea Autonomous Vehicles and Combat Systems **John Patchin** RTI **Paul Pazandak** RTI	1854226 Long Range Acoustic Communications **Jeffery Hoyle** Elbit America	1861329 PMS 406 Updated on UUV Programs and Enabling Capabilities **CAPT Matt Lewis, USN** PEO Unmanned and Small Combatants, Navy Unmanned Maritime Systems (PMS 406)	1861244 Advanced Submarine Sensor Surface Warfare Utility **Jonathan Sass** Johns Hopkins University Applied Physics Laboratory			1847351 Counter UUV Effectors **Matthew Searle** Oceanetics, LLC
2:30 pm	1842206 Busting the Myths of Applying State of the Practice Digital Electronic Systems Engineering To the Navy's Undersea Warfare Enterprise **James Chew** Cadence Design Systems	1840036 Scalable Event-Triggered Data Fusion for Acoustic Communications **Gregory Sinsley** Penn State Applied Research Laboratory	1874938 Universal Launch and Recovery of UUVs **Eric Hendricks** NIWC Pacific **Jason Bench** NIWC Pacific	1861881 Non-Acoustic Detection of Unmanned Underwater Vehicles **Seth Meiselman** U.S. Naval Research Laboratory **Geoffrey Cranch** U.S. Naval Research Laboratory			1877016 Review of NPS Research Projects in Mine and Undersea Warfare **Rick Williams** Naval Postgraduate School
3:00 pm	**Networking Break** Dealey Center Outside Plaza						
3:30 pm	1831947 Exploring Knowledge Retrieval Techniques in SWFTS Using Open Domain Large Language Models **William Matuszak** SeaCorp **Matthew Corser** NUWC	1863226 Challenges and Opportunities for Enabling Submarine Operations in the Arctic **Michael Brawner** General Dynamics Electric Boat **Joshua Malaro** General Dynamics Electric Boat	1880042 PMS415 Updates **CAPT Gene Severtson, USN**	1863789 Automated Machine Learning Neural Network Model Architecture Search Framework for Underwater Acoustic Signal Detection & Identification **Ira Morgan** Applied Research Laboratories University of Texas at Austin			1852424 KnowGeo: Underwater Acoustic Sensor Network **Colin Funai** Raytheon BBN Technologies

4:00 pm	1874802 Future Naval Power Systems Considerations for Combat Weapon Systems **Elvis Crespo** Booz Allen Hamilton	1862350 Collaboration for Undersea Decision Advantage (CUDA) **Todd Cloutier** Monterey Technologies, Inc.	Russia / China Torpedo / Counter Developments ONI	1856462 Automated Detection of Novel Targets In Synthetic Aperture Sonar Imagery Using Training Data Generated by Simulation **Joshua Humberston** Sandia National Laboratories	1875667 Engaging the Seabed and Performing Careful Identification and Access To Critical Areas of Concern **John Zimmerman** Oceaneering	1853375 ROMULUS: Remote Operational Monitoring Unit Leveraging UUV Simulation **Thomas Stubbs** Integer Technologies, LLC **Josh Knight** Integer Technologies, LLC	Navy Expeditionary Mine Countermeasures Program Update **CAPT Jon Haase, USN** Navy Expeditionary Mission Program Office (PMS 408)
4:30 pm	1847432 Hybrid Drone: The World's Only Multi-domain (Marine, Ground, Air) Autonomous Vehicle **Scott Kempshall** HyALTA Aeronautics, Inc.	1875725 Oceaneering's Onshore Remote Operation Centers **Matthew Chapman** Oceaneering	Russia / China UxV (Platforms + Ops) ONI	1878019 Submarine Deployed Optical Water Column Characterization to Enhance Environmental Awareness **David Shane** Boston Engineering **Colin Murphy** UWDC	1854227 At-Sea Testing of a Blended Wing Glider **Scott Mahar** General Atomics	1854187 Submarine High Energy Laser Weapon System **Michael Pero** Naval Surface Warfare Center Dahlgren Division	
5:00 pm	**Conference Adjourns**						