# 2019 Undersea Warfare Technology Spring Conference

Technical Session Topics by Track | Full schedule to be released soon!

#### **AVIATION**

- Revisiting Depth Bombs for ASW
- DVLA Test Results
- Hyperspectral Image Classification Via Compressive Sensing
- An Alternative Approach to Failure Analysis
- Air ASW Mission Analysis
- Digital Vertical Line Array (DVLA) Sonobuoy
- At Sea Validation of the Next Generation of Sonobuoy Systems
- High Duty Cycle Architecture Study
- 500 Hz A-size Sonobuoy
- DICASS Automation Development
- Results of the Multistatic Active Coherent Enhancements (MAC-E) Study
- Engineering Analysis of Sonobuoy Performance
- High-Duty-Cycle Waveforms for Multistatic Active Systems
- Mid Frequency Active Sonobuoy (MFAS) Program Update

## **COMBAT SYSTEMS / WARFIGHTER PERFORMANCE**

- Meeting the Commander's Intent...Rapid Capability Development for Future Submarine Payloads
- PMS 415 Program Updates
- Engageability: A Fundamental Concept in Submarine Third Party Targeting
- IWS 5.0 Update
- Renewing the Advantage through Modernized Training
- Human Thermal Warming Suit for Wet Submersibles: Warm Air Thermal System (WATS)
- The Broadband Scattering Signatures of Emerging Undersea Threats

## C41

- Maritime Test Bed Overview and Progress
- Proposed defense against Poseidon Nuclear powered/nuclear armed torpedo
- What can the Undersea Communications & Integration Program Office do for you?
- Network Virtualization for Navy Afloat, Undersea and Airborne platforms
- Mission Display for Anti-Submarine Warfare (ASW) Cross Domain Communications, Command, and Control (C3) Manned/Unmanned Systems Using Augmented Reality (AR) and Virtual Reality (VR)
- Implementation of the MUOS and IW waveforms on the Digital Modular Radio
- Automated Protocol Translator (APT) Automated code generation to rapidly develop interface software supporting communications and data exchange in a System-of-Systems environment
- Director
- Data Sensors and Artificial Intelligence in the Undersea Domain
- Cybersecurity Framework for Undersea Warfare

#### **MINE WARFARE**

- Mine Countermeasures Gap Analysis
- The Role of Underwater Electromagnetic Signature Reduction in Mine Countermeasures
- Surface Ship Degaussing System Performance Evaluation through Finite Element Method Modeling
- Mine-hunting and Performance Estimation using Autonomous Underwater Vehicles
- Enabling Technologies for Covert, AUV-based Mine Warfare Operations
- Advanced Capabilities for Expeditionary MCM Sensing
- High-Temperature Superconducting Mine Countermeasures for Unmanned Sea Surface Vehicles
- Technology Advancements Supporting Semi-Autonomous Mine Neutralization
- Next Generation Mine Countermeasures With Man Portable Autonomous Underwater Vehicles
- MIW in the Future
- Multi-Shot Mine Neutralization and the UK/French Maritime Mine Countermeasures Project
- Evolution and Way Ahead for MK 18 Unmanned Underwater Vehicles and the next generation

## **UNDERSEA SENSORS**

- Structural Acoustic Processing for Fleet Sonars
- Enhancing the Capabilities of Multibeam Echosounders to Include Doppler Velocity Data
- Improved Signal Processing for SURTASS Active Clutter Reduction
- Distributed Autonomous Sensing of Undersea Threats
- Managing IUSS Mobile Surveillance System Capabilities, today, tomorrow, and in between.
- PMS 485's Deployable Surveillance System Update
- The Arctic Challenge: Novel Employment of Existing Technologies to Maintain Our Undersea Dominance
- Laboratory measurements and simulations of reflections from a water/clay interface during the diffusion of salt
- The Adaptable Monitoring Package for Port Security Applications
- Air Deployable Acoustic Receiver (ADAR) Sonobuoy Improvements
- On-going Efforts in Acoustic Transduction at USSI
- Remote Persistent ISR & C3
- Update on ONR Code 32ASW Projects
- Portable Missile Impact Scoring System (PMISS) Splash Impact Measurement System (SIMS)

## **UNDERSEA VEHICLES**

- Submarine Escape and Rescue
- Hybrid Autonomy Architecture for Complex Missions
- Signals Collection from a Small Unmanned Undersea Vehicle (UUV)
- Department of Navy Strategic Roadmap for Unmanned Systems and the Future of Unmanned and Autonomous Undersea Vehicles
- Circulation Control (CC) Shroud for Submarine Maneuvering
- Resilient Autonomous Vehicle Control Using Model Based Systems Engineering

- DARPA Hunter Program- Delivering Payloads from Extra Large Unmanned Underwater Vehicles
- AD-ABV Enabling Autonomous Installation and Connection of Subsea Cables
- Common UxV Carriage for Stowage, Handling, Launch, Recovery, Tendering, and Transportation (SHLRT2) of UxVs on Naval Platforms
- GhostSwimmer: Addressing Critical USW Needs of VSW Operations and Counter UUV with Non-Conventional UUVs
- Undersea Power and Data
- TSEP Block VI VIRGINIA
- Emerging and Disruptive Technology in the Undersea Domain
- PMS 404, Undersea Weapons, Program Plans Update