

2023

Naval Innovative Science and Engineering Technical Exchange Meeting



12-14 September 2023

Hosted by

Naval Undersea Warfare Center Division Keyport
Keyport, Washington

-on behalf of-

Deputy Assistant Secretary of the Navy
For Research, Development, Test, and Engineering



Welcome to the 2023 NISE TEM

This event will provide an opportunity to collaborate, share ideas, and network within the greater Naval Research and Development Establishment (NR&DE) community.

This year's event will focus on Pacific Dominance by highlighting the associated research and technology transition projects being conducted by the Naval Warfare Centers and Naval Research Laboratory.

Thank you for attending the 2023 NISE TEM



Captain Clinton Hoskins
Commanding Officer, NUWC
Division Keyport



Captain Christopher Nash,
Director Maritime
Headquarters, US Pacific Fleet



Mr. Michael Slater, SSTM
Acting Technical Director,
NUWC Division Keyport



Dr. Brett Seidle
Deputy Assistant Secretary of
the Navy for Research,
Development, Test and
Engineering (DASN(RDT&E))

NISE TEM Showcasing 2023 Projects

NISE was established by the Secretary of Defense, in consultation with the secretaries of the Military to provide a mechanism for funding research and development (R&D) within the laboratories of the Department of Defense (DoD). The goal of the program is to grow the internal technical capabilities of the workforce through research projects, technical training, and other workforce development innovations. The NISE program also fosters creativity and stimulates exploration of cutting-edge science and technology (S&T); serves as a proving ground for new concepts in R&D; and supports high-value, potentially high-risk R&D in order to increase the speed of technology transition to the warfighter.



Program Overview

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Agenda

Day 1 – 12 September 2023



0700 - 0800 **Check In**
Naval Undersea Museum
Kraken Tent

0800 - 0930 **Poster Session #1**
Kraken Tent

0930 – 0945 **Break**

0945 - 1130 ***Welcome – JM Auditorium**

Dr. Aaron Darnton
Chief Technology Officer, NUWC Division Keyport

Captain Clinton Hoskins
Commanding Officer, NUWC Division Keyport

Dr. Brett Seidle
Deputy Assistant Secretary of the Navy
For Research, Development, Test and Engineering (DASN(RDT&E))

Captain Christopher Nash
Director Maritime Headquarters, US Pacific Fleet

1130 – 1230 **Lunch**

1230 – 1330 **Discussion Topics Panel Session #1 (Emerging Technology)**
Quantum – Mariners Tent
Intelligent Autonomous Systems (IAS) – Sounders Tent
*Contested Logistics – JM Auditorium

1330 – 1500 **Poster Session #2**
Kraken Tent

1500 – 1600 **Discussion Topics Panel Session #2 (Warfighter Requirements)**
Warfighter Driven Challenges/ Human Centered Design (WDC/HCD) – Mariners Tent
Tech Bridge/ National Security Innovation Network (NSIN) – Seahawks Tent
Science Advisors – Sounders Tent
*Wartime Acquisition Response Plan (WARP) – JM Auditorium

* Clearance required.

Agenda

Day 2 – 13 September 2023



0700 - 0800 **Check In**
Naval Undersea Museum
Kraken Tent

0800 - 0930 **Poster Session #3**
Kraken Tent

0930 – 0945 **Break**

0945 - 1100 ***Welcome- JM Auditorium**

Dr. Aaron Darnton
Chief Technology Officer, NUWC Division Keyport

Mr. Michael Slater, SSTM
Acting Technical Director, NUWC Division Keyport

1100 – 1200 **Lunch**

1200 – 1250 **Discussion Topics Panel Session #3 (Today's Fleet)**
Sustainment Technologies – Mariners Tent
Live Virtual Constructive (LVC) – Seahawks Tent
Lethality – Sounders Tent
***Advanced Coms – JM Auditorium**

1300 – 1400 **Discussion Topics Panel Session #4 (Tomorrow's Fleet)**
Manned/Unmanned Teaming – Mariners Tent
Path to an ONR/DARPA PO – Seahawks Tent
Path to the POM – Sounders Tent
***Cybersecurity – JM Auditorium**

1415 – 1600 ***Transition Success Stories- JM Auditorium**
***Transitions**

Tours

Day 3 – 14 September 2023



Tour	Description	Times
Torpedo IMA and Depot (SECRET)	Tour the Torpedo IMA and Depot responsible for the upkeep and maintenance of vital assets to fleet.	0915 1030 1300 1415
Augmented/Virtual Reality (AR/VR)	Step into the future with our Augmented and Virtual Reality Lab that is assisting and advancing complex and in depth methods for training, education and repair procedures for the fleet.	0915 1145 1415
Keyport Innovation Center (KIC)	The Keyport Innovation Center is the cutting edge in rapid prototyping and engineering allowing new and advanced improvements in processes to be tested and validated quickly prior to full scale production saving valuable resources.	0915 1145 1415
Additive Manufacturing/Reverse Engineering	Additive manufacturing and reverse engineering allow dynamic and flexible rapid experimentation of new and cutting edge processes providing a viable product to the fleet faster.	0800 1030 1300 1530
Flotilla One/UUV ISEA Lab	Close coordination between the UUV ISEA Lab and Flotilla One allow for near instantaneous feedback to the production cycle of UUVs ensuring the fleet has the most up to date equipment for their operations.	915 1145 1415
Weapons Systems Test Facility (WSTF)	The Weapons System Test Facility provides a test bed for a multitude of specifications available nowhere else in the country.	0915 1030 1145



Keynote Speaker, Dr. Brett Seidle,

Deputy Assistant Secretary of the Navy for Research, Development, Test and Engineering (DASN(RDT&E))



Dr. Brett Seidle serves as the Deputy Assistant Secretary of the Navy for Research, Development, Test, and Engineering (DASN(RDT&E)) under the Assistant Secretary of the Navy for Research, Development, and Acquisition (ASN(RD&A)). Dr. Seidle is responsible for executive oversight of all matters related to RDT&E budget activities, science and engineering, advanced R&D, prototyping and experimentation, and test and evaluation. He is also responsible for oversight and stewardship of the Department of Navy Research and Development Establishment, which includes the naval laboratories, warfare centers, and university-affiliated research centers (UARCs).

He was formerly the Executive Director for the Naval Surface Warfare Center (NSWC) and Naval Undersea Warfare Center (NUWC) with more than 28,000 employees. The Naval Sea Systems Command (NAVSEA) warfare centers represent approximately 30 percent of the Navy's engineering and scientific expertise. NSWC is comprised of eight echelon-four divisions: Carderock, Corona, Crane, Dahlgren, Indian Head Explosive Ordnance Disposal Technology, Panama City, Philadelphia, and Port Hueneme, as well as two echelon-five commands: Dam Neck Activity (part of Dahlgren) and Expeditionary Exploitation Unit One (part of Indian Head). NUWC has two echelon-four divisions: Newport and Keyport, as well as one echelon-five command: Naval Sea Logistics Center (part of Keyport).

During his time at NAVSEA, Dr. Seidle was also detailed into the position of Executive Director for SEA 04 Industrial Operations in fiscal years 2021-2022, where he provided leadership and direction for the Navy and nation's public and private shipyards in maintenance, modernization, and new construction, responsible for more than 37,000 employees.

Dr. Seidle was appointed as a member of the Senior Executive Service (SES) and named the Division Technical Director (TD) at NSWC Crane on 2 October 2016. As the Division TD, Dr. Seidle was responsible for an organization of approximately 3,700 civilian employees focused on providing engineering and technical expertise to the nation's warfighters. He began his career in the public sector with NSWC Crane in 2000, working intimately with the Strategic Systems Program's Failure and Material Analysis Laboratory. In 2007, he was awarded a fellowship from NSWC Crane to pursue his PhD in public policy at Indiana University, which he completed in 2010.

In 1995, Dr. Seidle accepted a position with a joint venture between Alcoa and Cast Metals Industries (CMI), becoming the plant manager of the CMI precision mold casting facility in northern Indiana. In this role, he had full profit and loss responsibility for a facility with 700+ employees and \$100 million in sales, and managed the facility through the launch of the industry's first all-aluminum cross-member subframe for Chrysler's minivan. After the successful launch of this subframe, he subsequently became the plant manager for Alcoa's Kentucky casting center, responsible for the construction and design of the facility and its organization from an initial brownfield site to full operational status.

A graduate of General Motors (GM) Institute, Dr. Brett Seidle began his career in the private sector in 1983 working as an electrical engineer for GM. After being employed as a maintenance supervisor, general supervisor of manufacturing, and facility engineering manager, he was awarded a GM fellowship to attend Stanford University, where he obtained his master of science in electrical engineering. Upon his return to GM in 1992, he became the die cast manufacturing manager of the GM Powertrain Bedford Facility.





CAPT Clinton P. Hoskins,
Commanding Officer, NUWC Division, Keyport



CAPT Clint Hoskins is currently serving as Commanding Officer, Naval Undersea Warfare Center Division, Keyport. His previous assignment was the Operations Officer at Puget Sound Naval Shipyard and Intermediate Maintenance Facility (PSNS & IMF).

His sea duty assignments include tours as Combat Information Center Officer and Electronic Warfare Officer on USS WADSWORTH (FFG 9); Reactor Mechanical Division Officer on USS NIMITZ (CVN 68) completing a combat deployment in support of Operation Iraqi Freedom; Main Propulsion Assistant on USS ABRAHAM LINCOLN (CVN 72) during the opening phases of her mid-life Refueling Complex Overhaul; and Assistant Reactor Officer on USS NIMITZ (CVN 68) completing a combat deployment in support of Operation Inherent Resolve.

Ashore, CAPT Hoskins served as an instructor in the Mathematical Sciences and Operations Research Department at the United States Air Force Academy (USAFA) in Colorado Springs, CO. While at the USAFA he was re-designated as an Engineering Duty Officer. His engineering duty tours include Deputy Nuclear Assistant Project Superintendent on the USS PENNSYLVANIA (SSBN 735) Engineered Refueling Overhaul and later Ship Yard Docking Officer at PSNS & IMF; Force Naval Engineer for Commander, Naval Air Force Atlantic; and Business & Strategic Planning Officer at PSNS & IMF.

Raised in Colorado Springs, Colorado, CAPT Hoskins graduated from the University of Colorado at Colorado Springs with a Bachelor of Science degree in Applied Mathematics. It was while he was at the University of Colorado that he enlisted in the Navy under the Nuclear Propulsion Officer Candidate program. CAPT Hoskins was commissioned an Ensign through Officer Candidate School in 2000. He earned his Masters of Science degree in Systems Engineering from the Naval Postgraduate School in 2009.

His personal decorations include three Meritorious Service Medals, three Navy Commendation Medals, an Air Force Commendation Medal, two Navy Achievement Medals, and various unit awards.

CAPT Hoskins is married to the former Erin J. Jenkins of Colorado Springs, Colorado. They are the proud parents of two sons, Gavin and Carson, and a daughter, Cambria, and reside in Port Orchard, Washington.



Michael Slater,
Acting Technical Director, NUWC Division, Keyport



Mr. Michael Slater is currently Naval Undersea Warfare Center (NUWC) Division, Keyport's Acting Technical Director. Previously, he served as the Deputy Technical Director. In this capacity, he was responsible for leading the organization in the conduct of duties including oversight of Research, Development, Test and Evaluation (RDT&E) for undersea warfare (USW) systems, torpedoes, unmanned undersea vehicles, and defensive weapons systems. Mr. Slater provides technical leadership and oversight of the Command's Technical Capabilities, requiring expertise in a broad range of ship, Fleet, and USW system and weapon technical areas.

Prior to assuming his current position in June 2020, Mr. Slater was the Signature Measurement Technologies and Systems Division Head at the Naval Surface Warfare Center Carderock Division (NSWCCD) beginning in November 2014, where he was also appointed acting roles as Command Chief Technology Officer and Deputy Department Head. He oversaw In-Service Engineering Agent (ISEA), Technical Direction Authority, and life-cycle supportability, planning, engineering, logistics support, contracting, and fleet support for multiple TEAM Submarine and Pacific Fleet systems. Mr. Slater received the 2019 National Defense Industrial Association Bronze Medal award for Technical Merit in Undersea Warfare. Additionally, he was the Signature Measurement and Processing Branch Head at NSWCCD, Bangor Detachment from September 2012 to November 2014, where he managed all aspects of operations and technology for NSWCCD full-scale T&E measurement facilities.

From June 1998 to September 2012, Mr. Slater developed and deployed innovative data and technology ventures in the private sector. In this role, he oversaw the design, build, integration and installation of the Navy's high-gain underwater acoustic measurement systems. Additionally, Mr. Slater was a founding employee for a start-up company in a rapidly expanding commercial business sector, building a national broadband telecommunications network. He also demonstrated technical proofs of concept in offshore marine energy and unmanned undersea vehicle autonomy.

Mr. Slater entered federal civil service in 1985 as a Project Engineer and Data Analyst at the NSWCCD, Bremerton Detachment. During his 13 years with NSWCCD, he held progressive positions including Team Leader for Radiated Noise, Senior Test Director for Large Scale Vehicles, Submarine Trial Director and Range Safety Officer, and Director of RDT&E Facility Operations, before being appointed the role Detachment Director.

Mr. Slater holds a Bachelor of Science from Washington State University in Mechanical Engineering. He earned his Masters of Engineering in Acoustics from Pennsylvania State University and his Masters of Business Administration from Colorado State University. Mr. Slater holds a Defense Acquisition Workforce Improvement Act Level III Certification in Engineering and is a certified Project Management Professional.



Captain Christopher Nash,
Director Maritime Headquarters, US Pacific Fleet



CAPT Nash graduated with distinction from the United States Naval Academy in 1994 with a Bachelor of Science in Systems Engineering. In his first tour on USS WEST VIRGINIA (SSBN 736) GOLD he completed five strategic deterrent patrols, and a deployment to the Mediterranean Sea. CAPT Nash graduated from Naval Postgraduate School in June 2001 with a MS in Mechanical Engineering.

He reported in December 2001 as Navigation / Operations Officer of USS MONTPELIER (SSN 765). During his tour, USS MONTPELIER completed Mediterranean and Arabian Sea deployments and launched TLAM strikes in support of Operation Iraqi Freedom. CAPT Nash reported to the Chief of Naval Operations Submarine Warfare Directorate (N97) in July 2004 as the UUV and TLAM Requirements Officer. Following his tour in N97, he attended the Air Command and Staff College, where he earned a Masters of Military Operational Art and Science.

Nash reported as Executive Officer of USS KEY WEST (SSN 722) in September 2007. During his tour, KEY WEST earned the 2007 Arleigh Burke Trophy for the most improved unit in the Pacific Fleet and the Submarine Squadron Three Battle Efficiency awards for 2007 and 2009. He reported to the Joint Staff (J-8) in April 2009 where he managed Navy ship and submarine program acquisition requirements.

As Commanding Officer of USS WYOMING (SSBN 742) GOLD from February 2012 to July 2014, his team earned the U.S. Atlantic Fleet Arleigh Burke Trophy and the Submarine Squadron Twenty Battle Efficiency award for 2013. Following command of USS WYOMING, He served as the Submarine Group Ten Deputy Chief of Staff and the Submarine Squadron Sixteen Deputy Commodore.

Nash Commanded USS FLORIDA (SSGN 728) BLUE from June - November 2016. During his tour, FLORIDA earned the Submarine Squadron Sixteen Battle Efficiency award for 2016. From January to December 2017, he was the Assistant Director to the Deputy Assistant Secretary of the Navy for Budget (FMB/N82).

He Commanded SUBMARINE SQUADRON SIXTEEN from January 2018 – June 2019. Under his leadership, USS RHODE ISLAND and USS FLORIDA returned to operations after multi-year overhauls, USS GEORGIA and USS FLORIDA conducted extended forward deployments, and CSS-16 was recognized as the #1 People-Centered Squadron in the Submarine Force. Most recently, he served as Executive Assistant to the Vice Chairman of the Joint Chiefs of Staff.

CAPT Nash is married to the former Evangeline Sfondouris of Annapolis, Maryland and has three children. His personal decorations include the Jack Darby Award for Inspirational Leadership and Excellence in Command, the Defense Superior Service Medal (one star), the Legion of Merit (one star), the Defense Meritorious Service Medal, the Navy Meritorious Service Medal (two stars), and various service and unit awards.

Poster Sessions

Kraken Tent

12 SEPTEMBER — 0800 - 0930

Position/Command	Poster
1 NAWC	Contested Logistics Aviation Wargame (CLAW) Development Matthew Cosner
2 NAWC	SPEAR/THOR-ER Philip Aberer, Matt Walker
3 NAWC	Transfer Learning for UAV Trajectory Through Adaptive Control Alireza Farahmandi, Brian Reitz
4 NAWC	Next Generation Highly Loaded Grain Technology Greg Willhite, Matthew Gross
5 NAWC	PSTS: Provable Secure Time Signals Ezra Idy
6 NAWC	Air Refueling for MUM-T Christina Allee, Jim Tomasic
7 NAWC	Rapid Additive Manufacturing Parameter Optimization and Qualification Screening Clifton Bumgardner
8 NIWC ATL	Projective Geometry for a Weird Machine Michael McBeth, Ozzie Bolukbas
9 NIWC PAC	Topological Data Analysis for Condition-Based Maintenance Jamal Rorie
10 NIWC PAC	Versatile Expeditionary Robotic Swarm Assembly (VERSA) Spencer Koroly
11 NSWC CD	RAPx Micro UUV Development Ben Gordon, Woody Pfitsch
12 NSWC CD	Submarine Multi-Mission Distributed Simulation (SMMDS) Rich Loeffler
13 NSWC Corona	METCAL of Hypersonics Matt Winger
14 NSWC Corona	Low Cost Acquisition Radar for Legacy EW Simulators Robert Gordon
15 NSWC Crane	ERIS Kathrine Parks, Nathan Storey
16 NSWC Crane	Adapting Material and Process Advancements for Undersea Sonar Applications Sarah Schwemmin, Manda Schaeffer
17 NSWC Crane	Digital ROIC FPA Operational Optimization Cody Brelage, Bo Miller, Tim Morgan
18 NSWC Dahlgren	Threat Decision Engagement Kill Chain Algorithm (TDEKCA) Amanda Jenkins, Israel Johnson
19 NSWC Dahlgren	RECEPTOR Daniel Holden
20 NSWC Dahlgren	Argus Jay Blalock
21 NSWC Dahlgren	Antenna Array Design for High Frequency (HF) Transmit Hannah Killian
22 NSWC IH	Affordable and Effective 57mm (AnE57) Ammunition Kyle Beckett
23 NSWC IH	Establishing an Implosion-Driven Hypersonic Gun Capability Philipp Baldovi

24	NSWC	Acoustic Communications Modeling and Simulation Nathan Fuller
25	NSWC PCD	DEAL (Denied Area Locator) Jeremy Greene
26	NSWC PCD	Ontological Characterization for Efficient Testing Autonomy Ben Hartman
27	NSWC PHD	UAV Inspector Greg Devogel
28	NSWC PHD	ISEA of the Future Matthew Cole, William Emeny
29	NSWC PHD	Augmented Reality Maintenance System Nick Bernstien
30	NUWC Keyport	PCB Reverse Engineering Emily Saito
31	NUWC Keyport	Acoustic Holography of Undersea Vehicle Radiated Noise Sources Auberry Fortuner
32	NUWC Keyport	Equivalent Turn Modeling Exploration Michele Hicks
33	NUWC Newport	UAV Anomaly Detection Sherida Jacob
34	NUWC Newport	A Model Free Reinforcement Learning Approach to UUV Control with Optimal Numerical Precision Chris Hixenbaugh
35	NAVFAC EXWC	ECM Improvements Lynsey Reese
36	NAVFAC EXWC	Heimdall George Scott
37	NAWC	Precious Metals LVC Events Christa Benner, Nathan Fielder
38	NAWC	Partitioned Dictionary Learning Michael A. Culp
39	NAWC	Direct-to-Digital RF Embedded Design Robert Powelson, Omar Ramos
40	NAWCAD	Human-Centered Artificial Intelligence Design for Display Optimization Mitchell Tindall
41	NAWCAD	Advanced Carrier Landing & Navigation System Stephen Alexander
42	NAWCAD	Integrated High Fidelity Analysis for Hypersonic Vehicle Design George Weller
43	NIWC ATL	ManOWar (MoW) Wil Gilland
44	NIWC PAC	Leveraging Naval Datasets using Machine Learning in NEO TDA Colin Reinhardt
45	NIWC PAC	Digital Operational Wargame System David Nuernberger, Christopher Won
46	NIWC PAC	Neuromorphic Computing for information Warfare (NeuroComp) Justin Mauger
47	NSLC	NSLC Information System Data Analysis and Integration Patrick Shockey
48	NSWC CD	Large Scale Additive Manufacturing in a Testing Environment Kyle Mosqueda
49	NSWC CD	Magnetic Signature Impact Risk Assessment and Mitigation Implementation Sougata Biwas
50	NSWC CD	Full Ship Transient Shock Analysis (TSA) Capability Development Jake Mason
51	NSWC Corona	Enterprise Performance Integrated Capability (EPIC) Ed Ramirez

52	NAWC	Quantum Encryption of UAV Communications Julia Milton
53	NAWC	Nanocomposites for Laser and RF Shielding Jessica Cash
54	NAWC	Variable Fragmentation Warhead Technology Brian Hays, Derek Marshall
55	NAWC	Precision Intelligent Emitter Recognition for Collaborative Engagement (PIERCE) Omar Ramos
56	NAWC	Armament Handling System for Inside-Force Deployment (AHSID) Matthew Dos Santos
57	NAWC	BWUAS Transwing X-P4 Christina Allee, Jim Tomasic
58	NIWC ATL	Hadamard Filtered Radio Frequency Waveforms (AR 23-001) Jakob Kunzler
59	NIWC PAC	Self-Positioning Off Targeted Anti-GPS Emitters (SPOTAGE) Michael Ferguso
60	NIWC PAC	MMETAL: Maritime Monitoring Martin Jaszewski, Jonathan Sato
61	NUWC Keyport	IMA Material Readiness, Resource Availability Garrick Bell
62	NSWC CD	Creating Repeatable Additive Manufacturing (AM) Systems Adam Gershen
63	NSWC CD	Dynamic Digital Signature Products Renee King
64	NSWC Corona	Total System Ownership Cost Jesse Perez
65	NSWC Corona	Public to Private Metric Alignment (P2P-MA) Stephanie Pham
66	NSWC Crane	Digital Mission Engineering for Expeditionary Advanced Based Operations Ryan Loehrlein
67	NSWC Crane	FPGA Bitstream Assurance and Verification Through Bitstream Analysis Toolkit (BAT) Christopher Sozio
68	NSWC Dahlgren	57mm Guided Projectile for CMD Logan Compton
69	NSWC Dahlgren	MPs-Affordable and Effective 57mm (AnE57) Ammunition Chris Harrison
70	NSWC Dahlgren	Advanced Hypersonic Launch Testbed Development Michael Libeau, Daniel Wise
71	NSWC Dahlgren	Ultra Wideband Software Defined Radio for Hypersonic Weapons Ryan Bosley
72	NSWC IH	Enhanced Performance Highly Insensitive Pressed Explosives Utilizing RAM Milled HMX Hannah Dudak
73	NSWC IH	Scale Up and Feasibility Testing of a Novel Insensitive Energetic Binder Carl Brothers
74	NSWC PCD	Acoustic Inversion Using Machine Learning (AIM) to Localize Sound Sources Nicholas Palermo
75	NSWC PCD	Wide-Area Deep Water Minehunting Jennifer Powell
76	NSWC PCD	Surface Mine Delivery Joy St.Amant

77	NSWC PHD	Robotic Demonstrations Greg Devogel
78	NSWC PHD	Photogrammetry & LiDAR Capability Development Renee Oats
79	NUWC Keyport	Cybersecurity T&E Framework for Undersea Systems Jared MacDonald
80	NUWC Keyport	Adaptive Intelligence for Predictive Maintenance (AI-PM) Brian Womack
81	NUWC Keyport	SUUV Endurance Extension Kevin Proulx
82	NUWC Keyport	Optical Acoustic Transducer Kraig Frederickson
83	NUWC Keyport	Electromagnetic Wave Propagation for Undersea Communications Daniel Gentile
84	NUWC Newport	Multi-Vehicle Software Analysis Toolsets to Support Warfighter Tactical Decision Aids Paul Bally
85	US Naval Research Laboratory	Adapting Path Planning Behavior for Attrition in a Fleet of Agents Using Path-Sensors in Communication Denied Hazardous Environments Loy McGuire
86	NSWC Crane	Next Gen USV Ryan Thompson
87	NSWC Crane	Neutron Single Event Effects Robert L. Cooper
88	NSWC Dahlgren	Hybrid Missile Launcher Study Stephen Grossen
89	NSWC Dahlgren	Gridlock and Track Correlation Microservices Nicole Faulkner
90	NSWC Dahlgren	Hypersonic Cavity Research Ryan Burke
91	NSWC Dahlgren	E-WISP Sarah Dye
92	NSWC IH	Effects of Intermetallic and Gas Generating Compositions on Combustion of Metal Fuels Emma Skekel
93	NSWC PCD	Advanced Autonomous Remote Lifesaving System (AARLSS) Mike Tavarone
94	NSWC PCD	Enhanced ISEA Technical Communications Quinn Straub
95	NSWC PD	UV Activated Catalyst for Removal of Airborne Contaminants Franklin J. Gulian
96	NSWC PD	AI/ML Experimentation and Integration Laboratory (AXIL) Max Weissman
97	NSWC PHD	Combat Systems Study Greg Devogel
98	NSWC PHD	Wartime Acquisition Response Plan / Battle Damage Assessment and Repair MEGA Project David Aaron
99	NUWC Keyport	Automation of Depot Repairs Parker Piedmont
100	NUWC Newport	Direct Exploration of Next Gen Piezoelectric Ceramics Adam Heitmann
101	NUWC Newport	Undulated Tow Cable Geometry for Drag and Strum Reduction Christin Murphy
102	NSWC Corona	Track Association Machine Learning Environment (TAMaLE) Lino Valdovinos

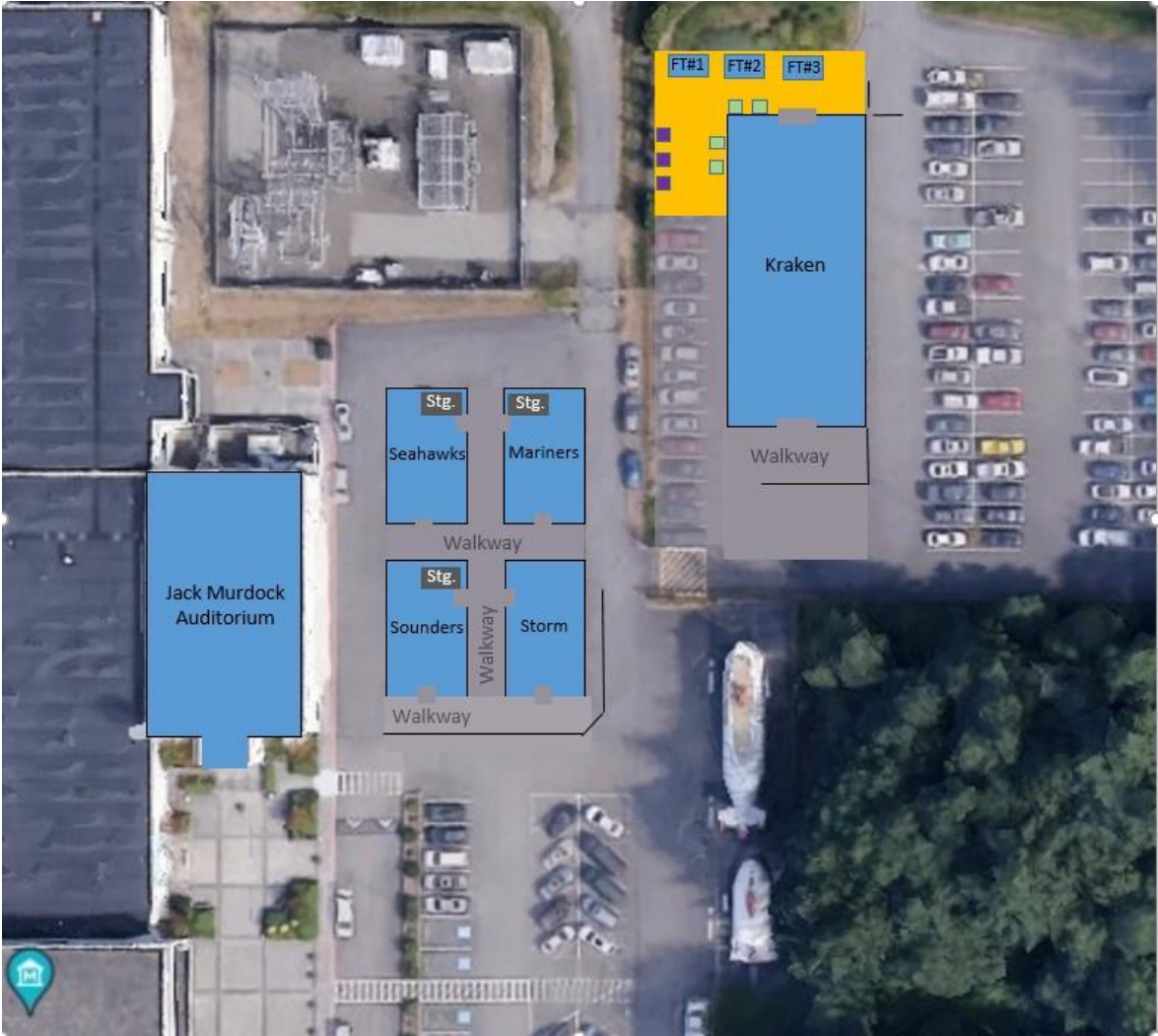
Kraken Tent

13 SEPTEMBER — 0800 - 0930

103	NAVFAC EXWC	aPUDS-Autonomous Precision Underwater Deployment System Nick Logan, Griffin Ross, Matt Pollard, James Tuazon
104	NAVFAC EXWC	Airfield Pavement Design for P-8 Aircraft Operations Injun Song
105	NAWC	ASEW: SPARKY Tony Brescia
106	NAWC	Computed Tomography Reconstruction of Multi-Axis Streak Schlieren Images John Ellis, Michael Delaney
107	NAWC	Machine-Learning for Modulation Recognition Levi Roberts
108	NAWC	Evaluating the Effectiveness of Adaptable Automation Transparency for Training Systems Interfaces Emily Anania, Beth Atkinson, James Pharmer
109	NAWC	Drone Shark Paine Wingate
110	NAWC	VisNav GPS Denied Passive Vision Relative Navigation for Shipboard Auto-Landing Peter Arslanian
111	NIWC ATL	NAVWAR Simulator Jake Witmer
112	NIWC PAC	Maritime Troposcatter On-The-Move Jia-Chi (Sam) Chieh
113	NIWC PAC	Electronically Scanned Arrays for Airborne and LEO SATCOM Links Raif Farkouh
114	NIWC PAC	Adaptive Quantum Machine Learning for Network Traffic Classification Ramiro Rodriguez
115	NSLC	Robotic Process Automation (RPA) Brett Davis
116	NSWC CD	Integrated Structural Design Environment (ISDE) Danial Iqbal
117	NSWC CD	Observable Ocean Data Discovery (O2D2) Internal Waves Johanna Riley Evans
118	NSWC CD	Carderock Data Science & Analytics Lab Overview Jeff Daniels
119	NSWC Corona	Cyber Warfare Analysis Lab (CPRIME) Improvement Andrew Kilfeather
120	NSWC Crane	Cyclostationary Feature Selection Tony Tai
121	NSWC Crane	Obscure+ Kira Haag
122	NSWC Crane	NUAC Matt Alley
123	NSWC Dahlgren	ELAWS (Embedded Lifecycle Assessor for Weapon Systems) Shawn Schneider
124	NSWC Dahlgren	Simulated and Live Advanced Autopilot Challenge (SLAAC) Dan Parks
125	NSWC Dahlgren	SkyView for Hypersonic Weapons Lindsey Wyatt, John Lawton
126	NSWC Dahlgren	Affordable Long-Range UAVs in Support of Over the Horizon Targeting Christopher Weiland, Evan Savaria
127	NSWC IH	Accurately Predicting Non-Covalent Chemical Interactions Timothy Burgin, James Lee

128	NSWC PCD	Cloud AI/ML Environment (CAIMLE) Observable Ocean Data Discovery (O2D2) Jose Salas Vernis, J. Ryan McDowell
129	NSWC PCD	EUWS (Expeditionary Undersea Warfare System) David VanDellen
130	NSWC PD	Photogrammetry Automation & Data Pipeline James Case, Max Weissman
131	NSWC PD	ALIGN NSWCPD Design and TDP Services to NSWCPD SEP Salvador DeSantis, Philip Greiner
132	NSWC PHD	ANTX-Costal Trident Brendan Applegate, Greg Devogel
133	NSWC PHD	Additive Manufactured Covers for Combat System Charles Slagle
134	NUWC Keyport	Additive Manufacturing NEEC and SBIR Program Support and Outreach Mark Sorna
135	NUWC Newport	FightSim Kevin Pushee, Taylor Savoca
136	NUWC Newport	EW Using AI/ML Adam Dai

Event Map



Emergency Action Plan (EAP)

Purpose: To provide guidance to NISE TEM 2023 attendees should a natural or man-made incident occur during the activities taking place September 12-14.

Situation: Approximately 450 attendees will be gathered and meeting in five tents varying in size on the parking lot grounds of the Naval Undersea Museum and lot #5. NISE TEM 2023 organizers have coordinated with Naval Base Kitsap Fire Dept. (NBKFD) to ensure all applicable safety regulations are implemented and CNIC Police Dept. (CNICPD) to provide traffic control if necessary and security walk-throughs throughout the event.

In case of Fire:

- Dial 911
- Evacuate tent and proceed to your Muster area
- Follow instructions from First Responders and your event coordinators

In case of Active Shooter or Hostile Incident:

- Dial 911 if able to do so
- (Run) Evacuate tent and distance yourself from the Shooter or Hostile Actor
- (Hide) Find a location that provides cover and concealment
- (Fight) As a worst-case scenario, engage the Shooter or Hostile Actor and attempt to disrupt and or incapacitate by any means possible.
- Follow instructions from responding Law Enforcement
- Muster

Medical Event:

- Dial 911 if the event is suspected to be serious
- Follow instructions from First Responders

Muster:

- Event Muster procedures will be given by your Event Coordinator
- Refer to Figure 1 for Muster areas



Figure 1

Additional Instructions:

- Identify all Exits, Evacuation Routes and Muster areas as identified by NBKFD and event coordinators
- Silence cell phones and pay attention during Safety Briefs

If you have any questions regarding this plan, please contact your event coordinator or the NUWC Division, Keyport Emergency Management Coordinator Amy Abbott @ 360-396-5345 or email: amy.d.abbott2.civ@us.navy.mil