

# SBIR/STTR Program Outreach to the Newport SBIR Community



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NAVSEA SBIR/STTR Program Support  
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# Purpose and Objectives

**Purpose:** To educate and share information on NAVSEA's Small Business Innovation Research (SBIR) and Small Business Technology Transfer Research (STTR) Programs, its recently released FY23 topics, and new program requirements since reauthorization

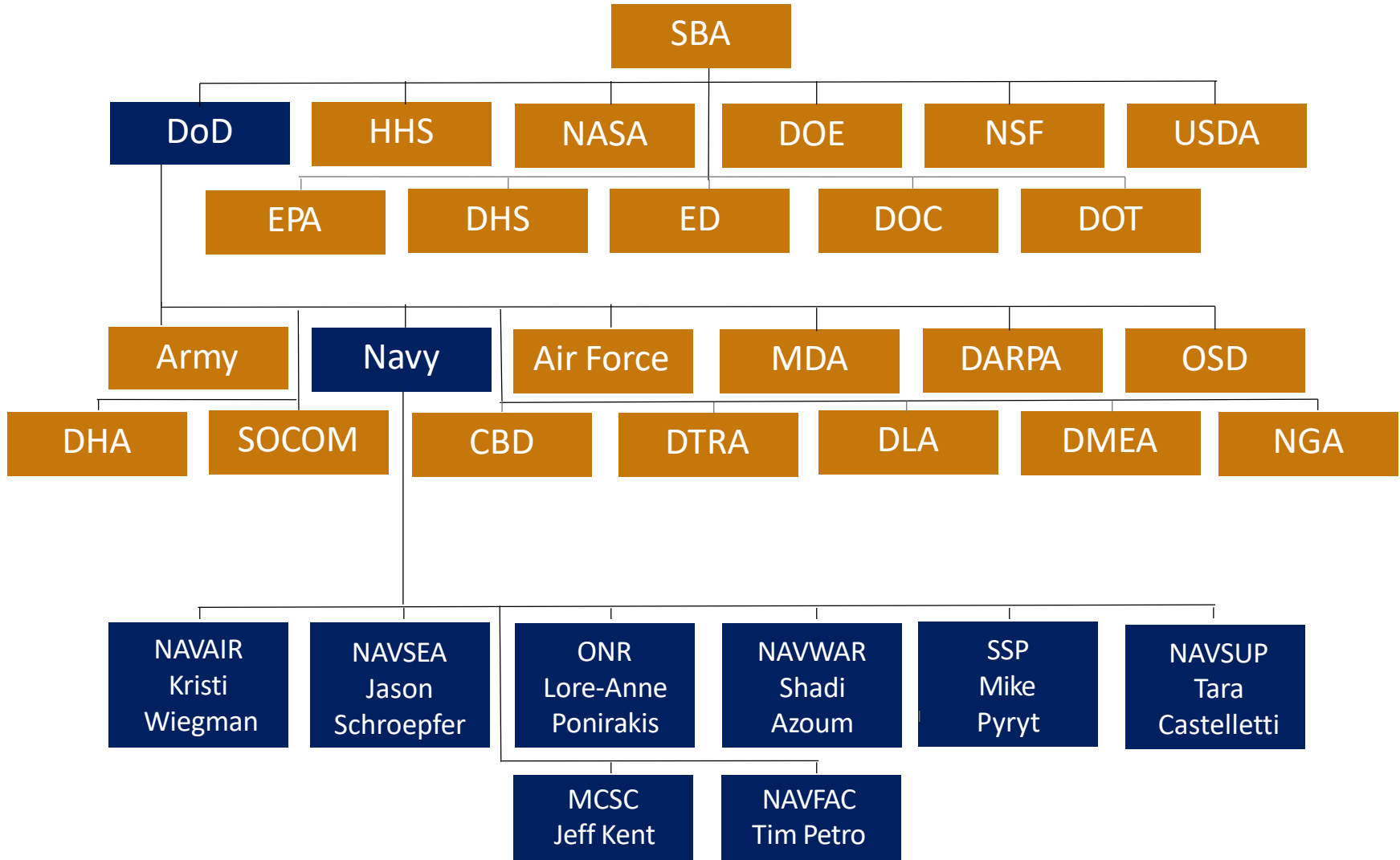
## **Objectives:**

- To facilitate and increase participation in proposal submission for SBIR/STTR Topics released for FY23
- Encourage small business solutions to Navy technical challenges
- Demonstrate impact of SBIR/STTR technologies
- Dispel “myths” associated with SBIR/STTR

# Agenda

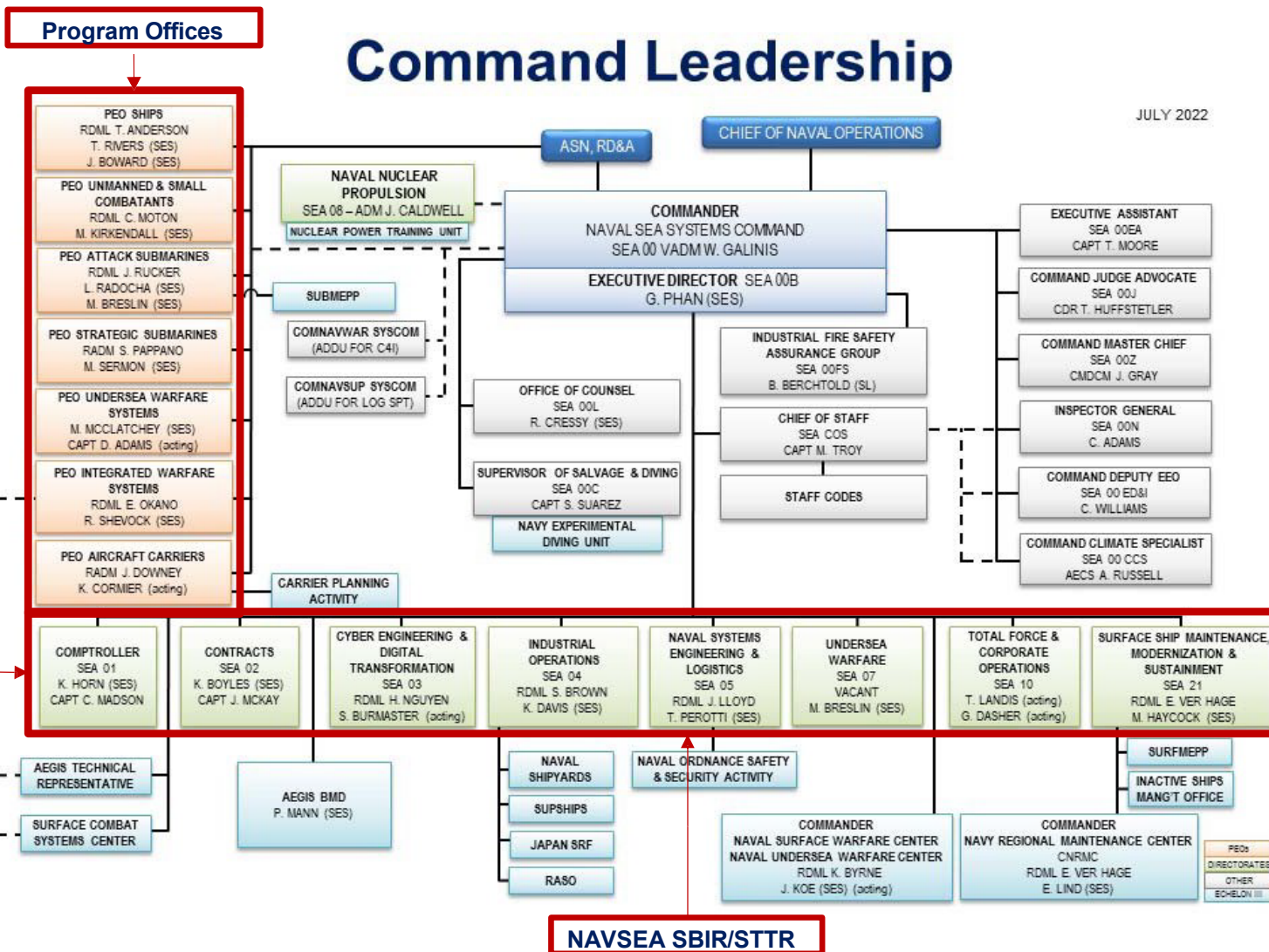
- I. NAVSEA and Navy SBIR/STTR
- II. FY23 SBIR/STTR Topics Review
- III. SBIR/STTR Program Observations

# Federal SBIR/STTR Organization



# NAVSEA Command Organization

JULY 2022



# NAVSEA SBIR/STTR Organization

**Executive Committee**  
SEA 00B & PEO EDs

**NAVSEA SBIR/STTR Working Group (SWG)**

**Program Manager**  
Jason Schroepfer

**Business/Financial Mgr**  
Sean Beebe

**Deputy Program Manager**  
Vince LoBosco

**PEO CV TM**  
Russell Knowles

**PEO IWS TM**  
Douglas Marker

**PEO USC TM**  
Jennifer Greenwood

**Team SHIPS TM**  
Emily Novak

**Team SUBS TM**  
Roberto Sanchez

**HQ & DIR TM**  
Howard Franklin

Focuses on the design, construction and delivery, and life-cycle support of all aircraft carriers and the integration of systems into aircraft carriers.

Manages surface ship and submarine combat technologies and systems, and coordinates Navy Open Architecture across ship platforms.

Responsible for the design, development, build, maintenance, and modernization of unmanned maritime systems, mine warfare systems, and small surface combatants.

Manages acquisition and complete life-cycle support for all U.S. Navy non-nuclear surface ships.

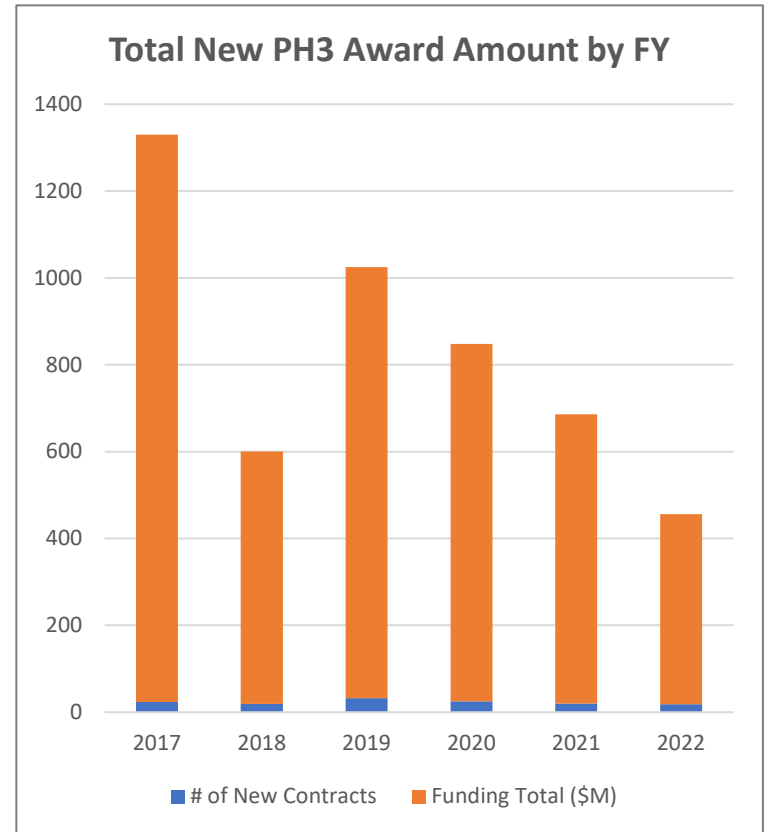
Focuses on the design, construction, delivery, and conversion of submarines and advanced undersea and anti-submarine systems.

Focuses on the engineering, design, construction, and delivery requirements for NAVSEA HQ & Directorates, including Diving & Salvage Operations



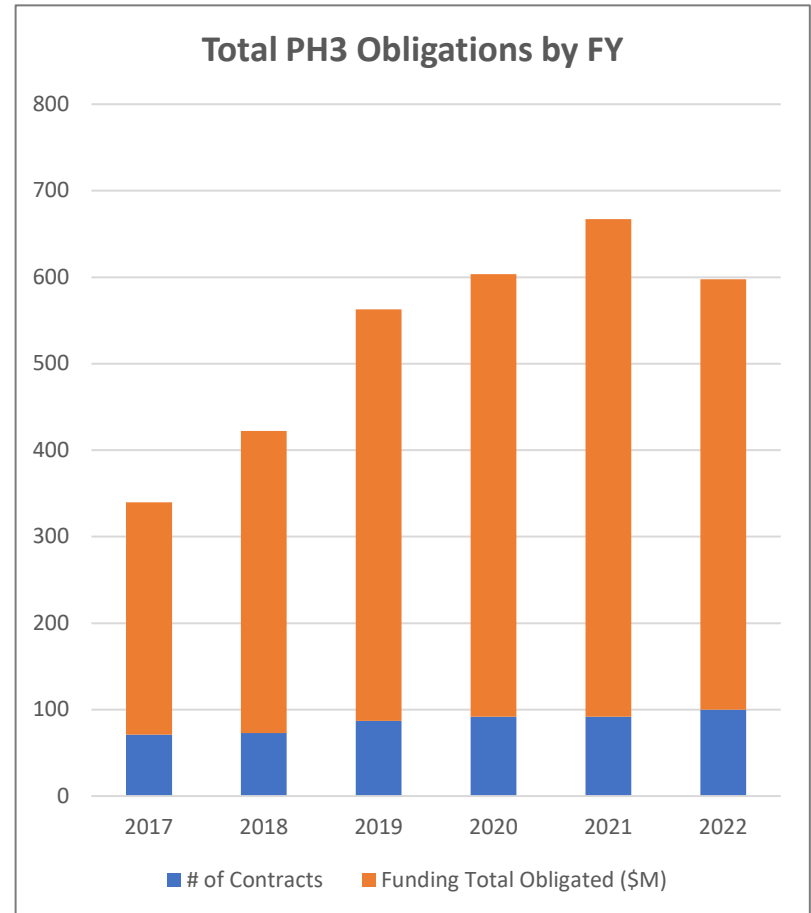
# SBIR Phase III New Contract Awards

Fiscal Year	# of New Contracts	Funding Total (\$M)
2017	23	\$1,307
2018	19	\$581.40
2019	32	\$993.00
2020	25	\$823.10
2021	20	\$666.20
2022	18	\$437.81



# SBIR Phase III Obligations by FY

Fiscal Year	# of Contracts	Funding Total Obligated (\$M)
2017	71	\$268.90
2018	73	\$349.20
2019	87	\$475.90
2020	92	\$511.50
2021	92	\$575.00
2022	100	\$497.60





# SBIR Phase I and II

- Phase I awards administered by NAVAIR Lakehurst are remaining at \$240K
- NAVSEA Phase II awards remain at \$1.8M\*
  - \*Reauthorization increased Phase II award amount to \$1.9M
  - Reauthorization permits third Phase II awards but DoD will maintain its two-award limit
- Reachback awards remain a useful way to tap into previous SBIR work and apply it in a new setting or new customer
  - A second reachback is considered a Commercialization Readiness Program (CRP) project, which requires matching funding
  - Reachbacks often lead to many of the NAVSEA Phase III awards that originate outside of NAVSEA topics (currently about 20% of SBIR Phase III awards are non-NAVSEA topics)

# Paths to SBIR Phase III Awards

- Traditional contract awards
  - NAVSEA Contracts (as long as 18 months)
  - Warfare Centers (typically 12 months)
  - GSA Assisted Acquisitions (up to 6 months)
  - Small purchase orders (limited to \$250K)
- Other Transactional Authority (OTA)
  - UTIC (NUWC)
  - MSTIC (NSWC)
  - NCMS
- Contract vehicles are harder to obtain than funding

# Understanding SBIR Phase III

- Experience demonstrates that many individuals inside the Navy do not understand SBIR Phase III awards as defined in the SBA SBIR/STTR Policy Directive Section 4c
  - This applies to both Acquisition Managers and Procurement Contracting Officers (PCO)
    - Training material to address this has been approved by NAVSEA but requires distribution and implementation of training
    - An internal process and roadmap for use of GSA for Phase III has also been formalized but requires distribution and implementation in 2023

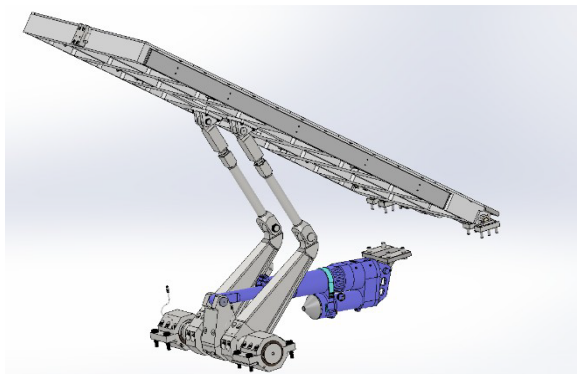
# Understanding SBIR Phase III

- Common myths regarding SBIR Phase III:
  - Phase III awards are made due to special data rights associated with SBIR
  - The Navy loses alternatives by awarding SBIR Phase IIIs
  - Certain companies are treated favorably
- Yes and No
  - OTAs/PIAs are not subject to SBIR Policy
  - Data Rights can be used as Evaluation Criterion\*

# Understanding SBIR Phase III

- The facts of SBIR Phase III need to be communicated:
  - Phase III awards are made because of Congressional statute that requires award to the SBIR company “to the greatest extent practicable...”
    - The SBA Policy Directive details a path to follow when award is not practicable
  - Data Rights are not a problem unless used for competition
    - Licenses and Non-Disclosure Agreements avoid issues with data rights but the Navy sometimes fails to apply these properly
    - Data Rights clause 252:227-7018 states that OMIT is unrestricted from the start—enabling a Form, Fit, and Function competition
  - Winning companies often repeat as SBIR winners because they understand Navy customer needs better than their competitors

# PEO Topic Release FY23



**Topic Number:** N231-053

**Technology Objective:** Electromechanical Actuators (EMAs) are used extensively on the GERALD R. FORD Class Aircraft Carrier flight decks for the Jet Blast Deflectors (JBDs), Integrated Catapult Control System, Barricade Stanchions, and Landing Signal Officer Display Systems.

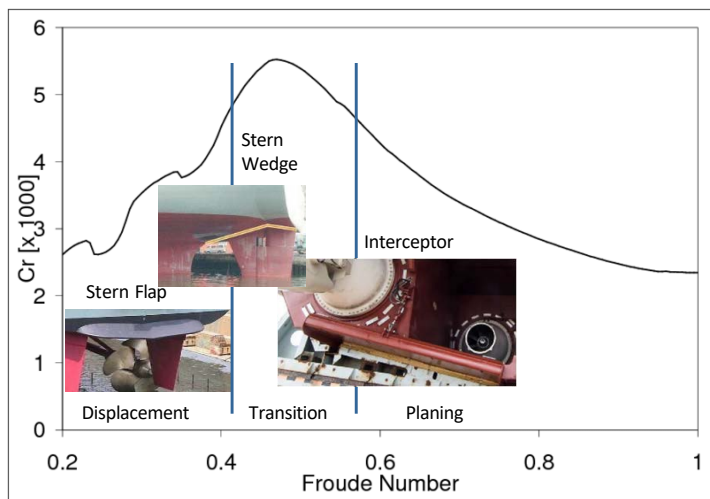
Existing EMA's are unable to lower in the event of mechanical or select electrical failures, creating a risk to flight deck operations, including loss of aircraft. The objective of this topic is to develop an EMA that can lower in a safe, controlled manner in the event of a system or component failure.

**Technological Challenge/Risk:** Current mitigations to lower a failed, extended EMA require significant shipboard alterations and introduction of manually operated hydraulic systems. The technology challenge is to develop an actuator that can lower with minimal external power and within the required time, in the event of system or component failure.

**Navy/Program Requirement:** Must meet desired specifications for installation and integration across desired Aircraft Carrier platforms. Must meet clearance of landing area requirements within required time to prevent potential loss of aircraft in blue water operations.

**Benefit/Payoff/ROI:** A planned alteration to introduce a lowering capability into a single Jet Blast Deflector has high costs and disruption to air warfare availability. A successful self lowering EMA would avoid this installation on each ship in the class, while extending the self lowering capability to all systems using these EMA's.

**Transition/Acquisition Strategy:** Current EMA modified configurations are installed with marginal mitigation to operational risk. Improved EMAs could be back-fit during limited modernization periods, but there significant cost, schedule and technical risk. As automation integration on ships progresses, future surface ships will make use of the new and improved EMA technology, particularly where there is a need to secure a load in the event of system failure (such as weapons handling systems).



- **Topic Number:** N231-052
- **Topic Title:** Advanced Reliable Wide-Range Hull Hydrodynamic Appendage
  - **Technology Objective:** Develop an Advanced Reliable, Wide-Range Hull Hydrodynamic Appendage (HHA) that provides fuel savings over a broad range of Froude numbers.
    - Fn: 0.25 (350' LCS @16kts, 190' OUSV @12kts)
    - Fn: 0.55+ (350' LCS @+35kts, 190' OUSV @+30kts)
- **Transition Programs:** PMS 406
- **Topic Authors:** Lawrence Murphy and Michael Lacny

• **Topic Number:** N231-051

• **Topic Title:** Underwater Diver-Applied Composite Patch Repair For Crack Arresting

• **Technology Objective:** Research, develop, test, and evaluate an underwater composite patching solution to arrest hull cracking on a variety of hulls. Investigate whether this repair procedure could be considered for a longer-permanent repair, or be categorized as a temporary emergent repair

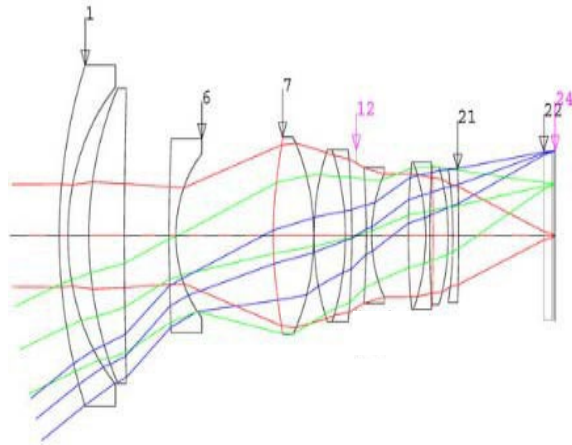
• **Transition Programs:** PMS 505, SEA 00C

• **Topic Authors:** LT Dustin Shelley and Scott Posey





# NAVSEA PEO IWS FY23 Topics



Topic Number: N23A-T011

Topic Title: Innovative Optics for Wide Field of View Infrared Sensors

Technology Objective: Develop fast (large aperture) optics for a wide field of view (WFOV) imaging sensor operating in the mid-wave and short-wave infrared (MWIR and SWIR) bands with large format focal plane arrays (FPAs).

Technological Challenge/Risk: Developing an optical design that meets the depth of field requirements without the need for prohibitively expensive assembly, alignment, positioning, or dynamic compensation techniques.

Transition Program: Initial transition is to an ONR FNC or Tech Candidate, followed by a final transition into a future increment of the SPEIR program of record.

Topic Author: Lawrence Dressman

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Topic Number: N231-045

Topic Title: Multi-Spectral, Multi-Sensor Image Fusion

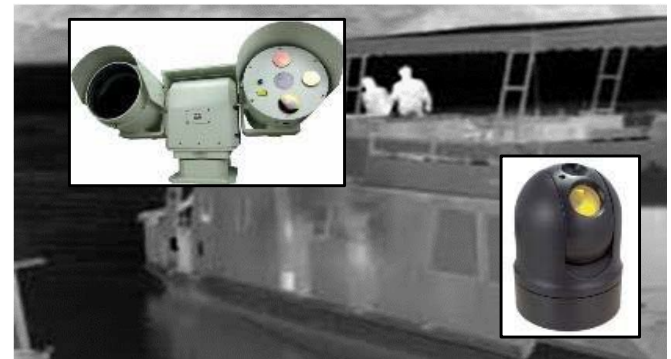
Technology Objective: Develop algorithms for real-time fusion of digital infrared (IR) video imagery originating from different sensors operating in different IR bands to create a fused image stream of high fidelity and resolution thereby improving target classification and identification.

Technological Challenge/Risk: Fusing video image data in real-time from high frame rate, high resolution, large format sensors. Fusing data from sensors that are widely separated (spatially) is another technical challenge.

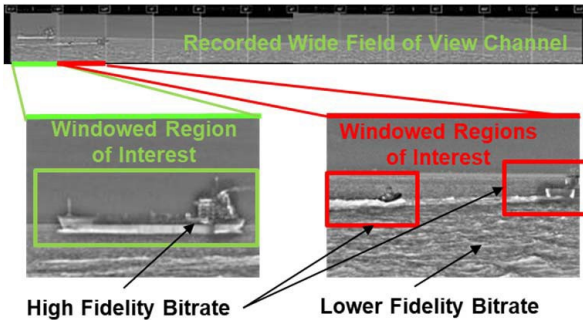
Transition Program: Transitions to SPEIR program of record.

Statement A: Approved for Release. Distribution is unlimited

Topic Author: Lawrence Dressman



# NAVSEA PEO IWS SBIR 23.1 Topics



Topic Number: N231-056

Topic Title: Intelligent Capture of Digital Imaging for Systems Engineering, Modeling, and Training

Technology Objective: Develop a high-capacity digital video imagery recording system that provides intelligent selection and efficient organization and storage

Technological Challenge/Risk: Developing a video identification algorithm that correctly selects video samples under highly dynamic conditions. Optimal compression of stored video is a secondary challenge and risk.

Transition Program: Initial transition is to the Shipboard Panoramic EO/IR (SPEIR) program of record. The technology is not in the SPEIR critical development path and transitions to the program when ready.

Topic Author: Lawrence Dressman

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# NAVSEA PEO IWS SBIR 23.1 Topics



Topic Number: N231-030

Topic Title: Model-Centric Safety Analysis Tools

Technology Objective: Apply Model Based System Engineering (MBSE) tools to create a model representing the safety process required to develop and deploy advanced Navy munition systems.

Technological Challenge/Risk: Apply MBSE approaches to integrate multiple munition safety requirements and procedures in order to build a data-centric understanding of the required space. This will allow for a level of automation to design analysis which will drive down overall costs to the program.

Transition Program: This technology will be developed for and transitioned to Naval Missiles (e.g., SM-6 and Over-The-Horizon (OTH)) and Projectile programs.

Topic Author: LCDR Ashley Wessel

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Topic Number: N231-037

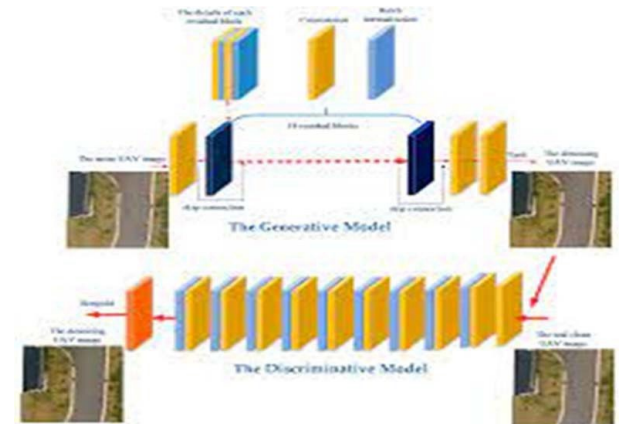
Topic Title: Gun Weapons Systems Synthetic Unmanned Aerial Systems Imagery Data Set

Technology Objective: Develop a synthetic imagery dataset of Unmanned Aerial Systems (UAS) using machine learning for computer vision discriminator applications.

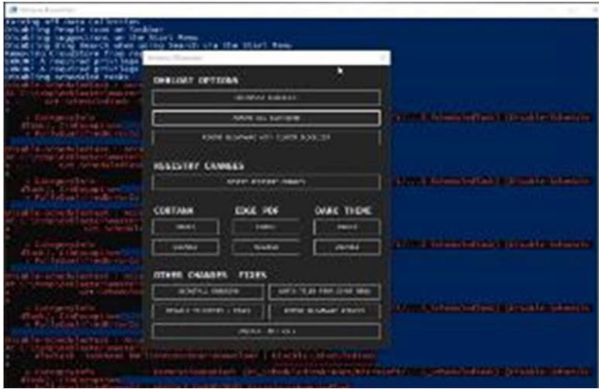
Technological Challenge/Risk: Visualization models can be unstable and diverge, produce limited varieties of samples, and the generator gradient vanishes so nothing is learned. Discrimination techniques can have high error rates.

Transition Program: Navy Gun Weapons Systems (e.g., MK 160 and MK 110) . Other PEO IWS C-UAS Systems (as appropriate)

Topic Author: Benjamin Goldman



# NAVSEA PEO IWS STTR 23A Topics



**Topic Number:** N23A-T009

**Topic Title:** Generalizable Tactical Software Artificial Intelligence or Machine Learning-Informed Debloating

**Technology Objective:** Develop a capability that leverages artificial intelligence and machine learning (AIML) technologies to de-bloat tactical software to reduce support costs, improve run-time stability, and reduce cybersecurity vulnerability.

**Technological Challenge/Risk:** Reduce the time required to de-bloat software. Achieve high accuracy in de-bloating while maintaining or improving system performance

**Transition Program:** IWS 5.0 Software Production processes.

**Topic Author:** Meg Stout

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**Topic Number:** N23A-T010

**Topic Title:** Sonar Dome Anti-Fouling Tracking and Prediction Tool

**Technology Objective:** Develop a capability to collect, analyze, and predict levels of Tributyltin Oxide (TBTO) in deployed sonar domes.

**Technological Challenge/Risk:** TBTO remains the only viable means of preventing biofouling on sonar domes. Developing a solution to track maintenance and predictions of TBTO efficacy.

**Transition Program:** Transition will be a stand-alone tool for tracking TBTO data collected for a hardware measurement capability in radomes in PEO IWS 5

**Topic Author:** Patrick Lockhart



# NAVSEA PEO IWS FY23 Topics



**Topic Number:** N23A-T014

**Topic Title:** Automated Knowledge Base Extraction and Student Assessment

**Technology Objective:** Develop an automated capability to generate exams with answer keys using Artificial Intelligence or Machine Learning (AI/ML)-powered data mining for Undersea Warfare (USW).

**Technological Challenge/Risk:** Assimilation of complete USW reference information Ability to transition more instructional content and time to high-fidelity virtual trainers

**Transition Program:** IWS 5.0 Training Infrastructure

**Topic Author:** Meg Stout

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**Topic Number:** N231-029

**Topic Title:** Software Incident Report Capture and Scripting

**Technology Objective:** Develop a continuous event recording and incident capture tool that collects metadata to enable the recreation of conditions associated with an error observed by the test team and generates test scripts for automated testing of conditions to validate fixes.

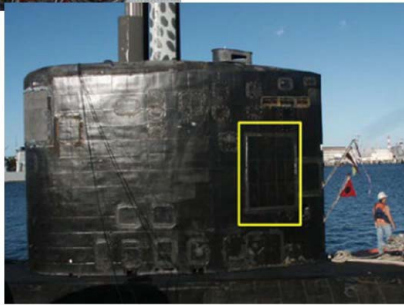
**Technological Challenge/Risk:** Validation of Bugs fixes will rely on properly capturing data and associated metadata. AI/ML needed to parse bug-related data from background data flows

**Transition Program:** IWS Combat System T&E FFR

**Topic Author:** Rob McNeal



# NAVSEA PEO IWS SBIR 23.1 Topics



**Topic Number:** N231-031

**Topic Title:** Automated Cavitating Waterjet Cleaning Device

**Technology Objective:** Develop an automated cavitating waterjet cleaning device for conformal hull array areas.

**Technological Challenge/Risk:** Environmental Impact issues Operability. Visual Inspection of efforts below the waterline. Safety of Array Panels/Units, Out Board Electronics, and OBE Connections

**Transition Program:** In-Service Support

**Topic Author:** Robert White

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**Topic Number:** N231-032

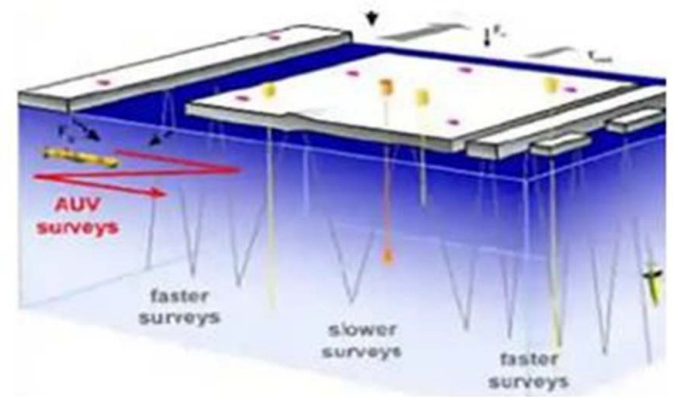
**Topic Title:** Launchable Mini-glider for Variable Payloads

**Technology Objective:** Develop a launchable mini glider sensor platform able to survive 48 hours in service within the water column.

**Technological Challenge/Risk:** Current XBT buoys are single-use Current collection requires specific deployment on a periodic basis, resulting in point measurement

**Transition Program:** USW systems

**Topic Author:** Pete Scala



# NAVSEA PEO IWS SBIR 23.1 Topics

**Topic Number:** N231-034

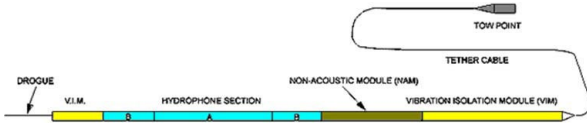
**Topic Title:** Open Architecture Telemetry First Level Multiplexer with Array Power Distribution

**Technology Objective:** Develop a single Open Architecture Telemetry (OAT) component which combines the functionality of an OAT First Level Multiplexer (FLM) with the array power distribution component (power shunt).

**Technological Challenge/Risk:** Optimization of shunt functionality for efficiency. Regulation of augmented dynamic power

**Transition Program:** Future USN towed arrays using OAT

**Topic Author:** Rob Cutler



**Topic Number:** N231-044

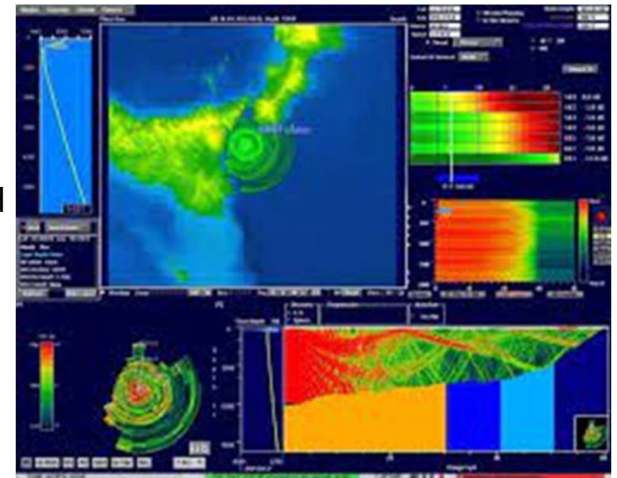
**Topic Title:** Undersea Warfare Decision Support System Virtualized Training and Expeditionary Unit

**Technology Objective:** Incorporate advances in virtualization and gamification to modernize USW DSS training from current curricula toward integrated USW C2 training. Develop a portable expeditionary user interface that can deliver this training throughout the enterprise.

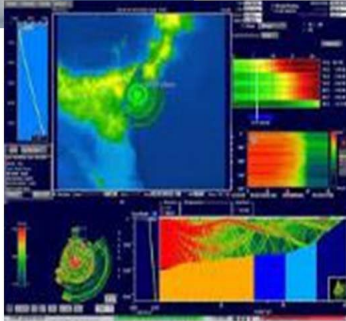
**Technological Challenge/Risk:** Operators need training that better supports proficiency, enables operators to keep pace with CI/CD upgrades USW-DSS systems are present throughout the locations supported by the Navy, driving expeditionary requirement

**Transition Program:** USW-DSS

**Topic Author:** Mike Essig



# NAVSEA PEO IWS SBIR 23.1 Topics



**Topic Number:** N231-049

**Topic Title:** Artificial Intelligence or Machine Learning Video Processing and Packaging

**Technology Objective:** Develop an automated tool to identify video images of interest using Artificial Intelligence/Machine Learning (AIML) to be sent to warfighters in real-time.

**Technological Challenge/Risk:** Using AI/ML approaches to identifying video content of interest to maximize information density in imagery transmitted in real time

**Transition Program:** USW-DSS, MPRA systems

**Topic Author:** Mike Essig



## N231-028 - Artificial Intelligence/Machine Learning (AI/ML) Hull Mechanical & Electrical Controls



Develop autonomous controls to significantly reduce the cognitive burden on operators in the monitoring, operation, actuation of engineering plants, detection, diagnosing, troubleshooting, and recovery of machinery casualties to improve long-term operation and sustainment of Navy surface combatants.

Transition Program: PMS 460, DDG(X) Guided Missile Destroyer

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## N231-033: Radio Frequency Transparent AN/SPY-1 Array Cover



Develop a Radio Frequency transparent protective cover for the AEGIS AN/SPY-1 Array that extends the life of the array coating. The covers should be removable for replacement, refurbishment or repairs and must be designed to encapsulate the array face while allowing access to array alignment points.

Transition Program: PMS 407, Surface Ship Modernization

## N231-039: Boat & Combatant Craft Electric Drive Propulsion System



Develop a marinized, electrically driven propulsion system to increase fuel economy and reduce noise. Current engines tend to be very inefficient at loiter speeds resulting in inefficient fuel consumption. The new system should enable total ownership cost reduction through reduced fuel consumption and less maintenance, as well as more efficient operation at loiter speeds.

Transition Program: PMS 300, Boats & Combatant Craft

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## N231-040: Rugged High-Temperature Superconductor Wire Bundles



Develop an HTS wire bundle that can be pulled throughout the ship and cut to length at the time of installation. This will eliminate the need to fabricate pre-determined cables with fixed lengths. In the event that extra lengths of cables are required, cables would not need to be re-manufactured. The new system will be used in installation of magnetic degaussing systems pre and post delivery.

Transition Program: PMS 377, LPD 17 Amphibious Transport Dock

## N231-041: Improved Distance Measurement During Underway Replenishments (UNREPs)



The Navy is seeking the development of a portable device to replace the current phone/distance line. It should provide the capability to accurately measure the distance between two ships and provide wireless communications during Underway Replenishments. During UNREPs, two ships must maintain a precise safe operating distance between ships.

Transition Program: PMS 400D, DDG 51 New Construction

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## N231-043: Extreme Cold Weather Resistant Gasket Material



As the Navy sails continues to sail in Polar regions, seals and gaskets are exposed to extreme cold weather which increases the potential for performance degradation and premature seal failure. Navy is seeking a durable gasket material capable of withstanding temperatures as low as -50°F and that can sustain heavy loads and other forces associated with ship motion.

Transition Program: PMS 400D, DDG 51 New Construction

## N231-050: Autonomous Crane System for Payload Motion Control

The Navy seeks the development of a cargo stabilization system to accommodate different load types in a safe and timely manner without requiring assistance from tag line handlers. Tag line handlers are frequently exposed to hazards and are in close proximity to the moving payload.

Transition Program: Strategic and Theater Sealift (PMS 385)

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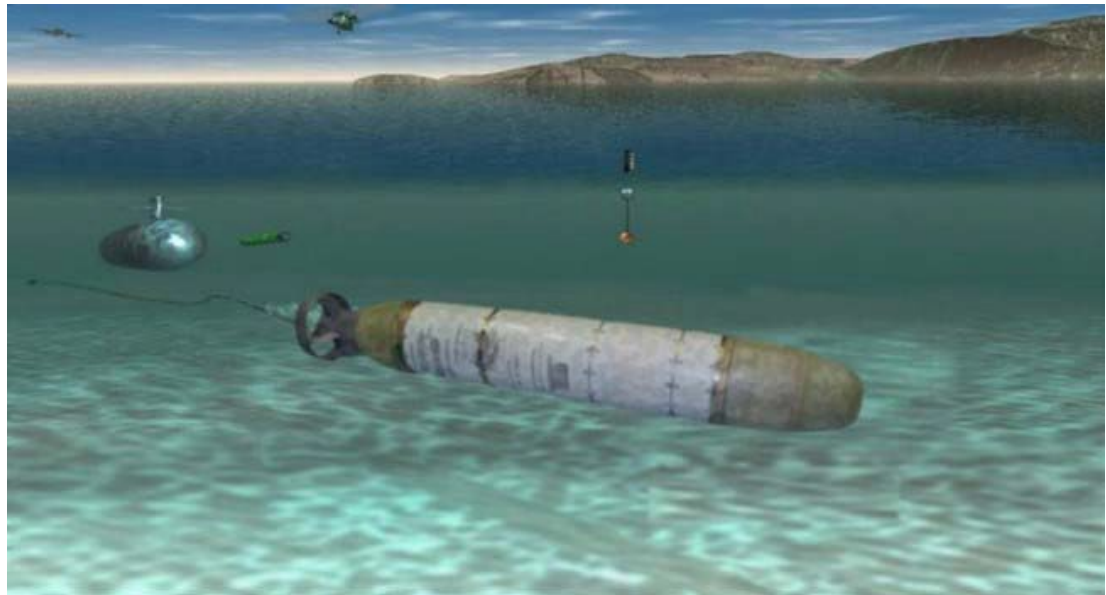
**Topic Number:** N231-046

**Topic Title:** Revolutionize Undersea Training Target Motors

**Technology Objective:** Modernize, innovate, and improve the efficiency of the MK39 EMATT motor that leverages the advancements in printed circuit board (PCB) stators, as well as, the reduction in space, noise, and weight of the motor enabling additional capabilities of the EMATT.

**Transition Program:** PMS 404, Undersea Weapons

**Topic Author:** Robert Phillip, NUWC Division [robert.j.phillip3.civ@us.navy.mil](mailto:robert.j.phillip3.civ@us.navy.mil)



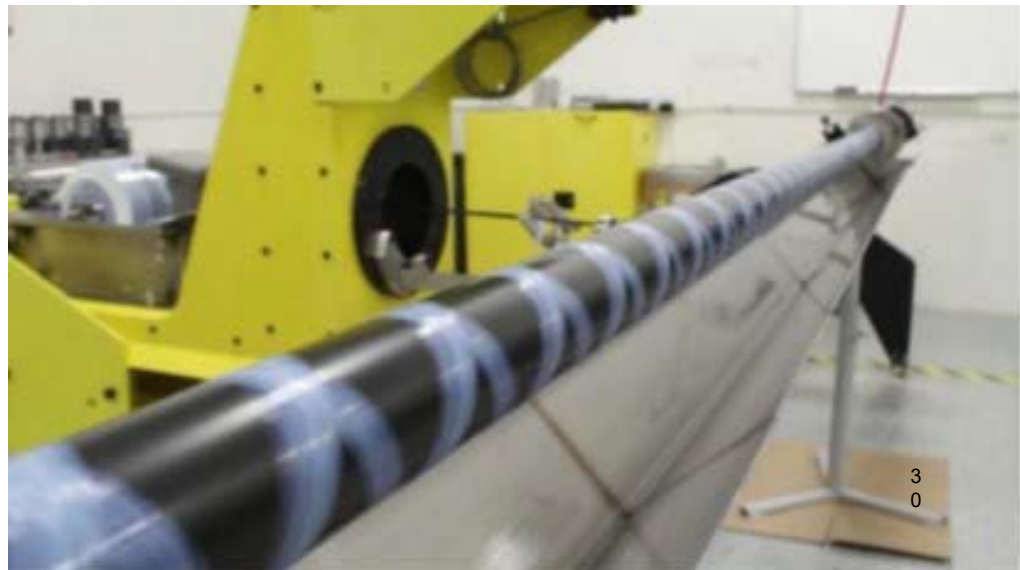
**Topic Number:** N231-047

**Topic Title:** Alternative Materials and Fabrication Processes for US Navy Propulsor Shafting

**Technology Objective:** Develop low-cost non-traditional materials and repeatable, reliable, efficient, and robust manufacturing processes suitable for large, thick, waterborne propulsor shafting subjected to long-duration complex stress states.

**Transition Program:** SUB 073, , Advanced Submarine Systems Development

**Topic Author:** D. J. Pohlit, Paul Coffin, NSWC Carderock, [david.j.pohlit.civ@us.navy.mil](mailto:david.j.pohlit.civ@us.navy.mil)



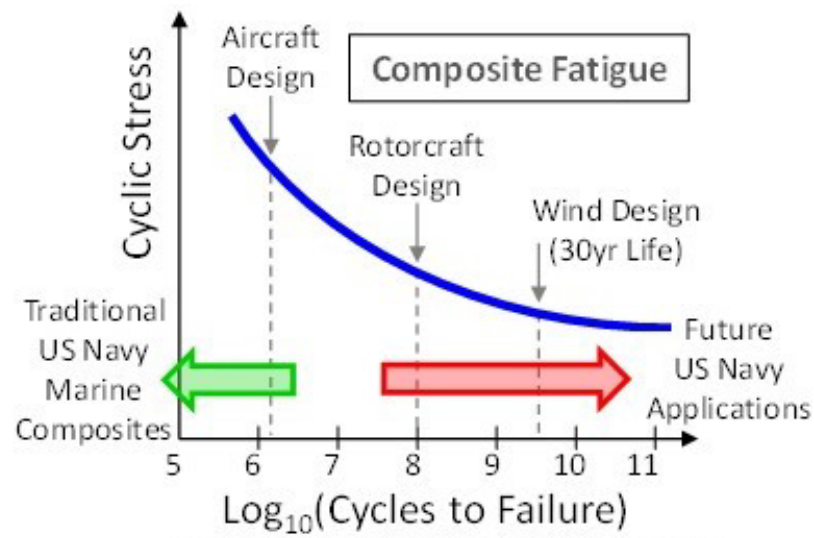
**Topic Number:** N231-054

**Topic Title:** Structural Design Process for High-Cycle Fatigue Performance of Composite Materials & Structures

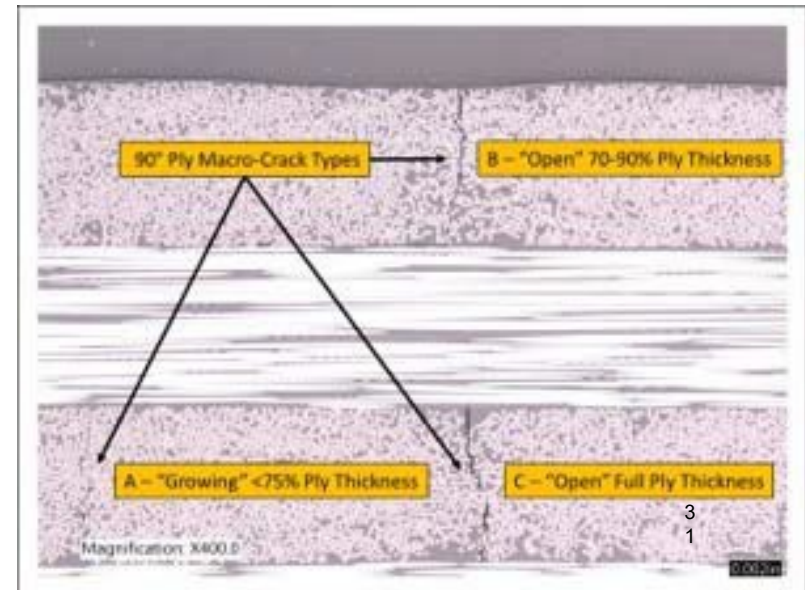
**Technology Objective:** Develop, execute, and validate methodologies to efficiently establish high-confidence design allowables for high-cycle fatigue performance of composite materials and structures.

**Transition Program:** SUB073, Advanced Submarine Systems Development

**Topic Author:** D. J. Pohlit, Paul Coffin, NSWC Carderock, [david.j.pohlit.civ@us.navy.mil](mailto:david.j.pohlit.civ@us.navy.mil)



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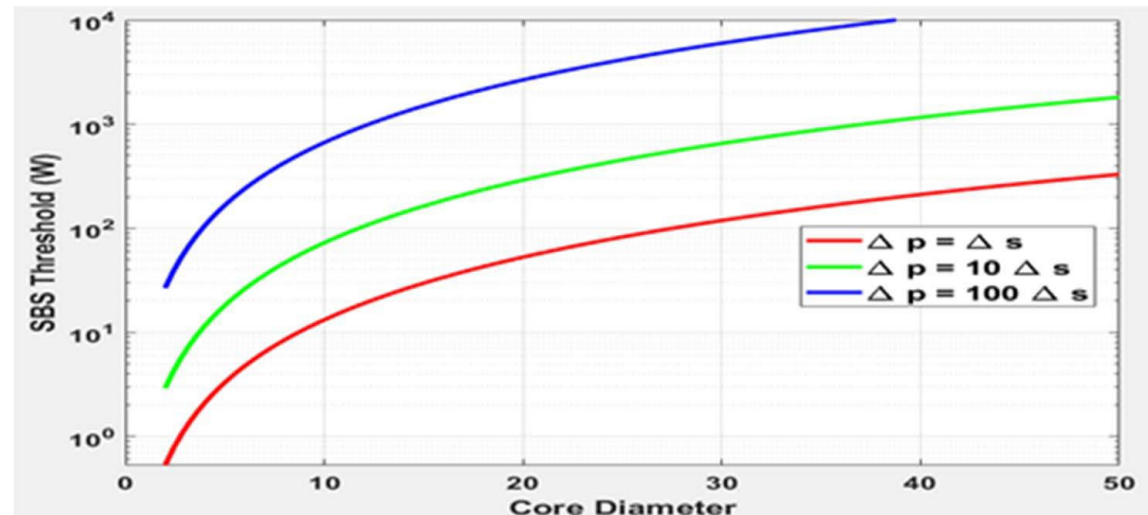
**Topic Number:** N23A-T012

**Topic Title:** Atmospheric Aerosol Model and Data Collection Over the Marine Boundary Layer for Imaging/RF and Laser Beam Propagation

**Technology Objective:** Develop a periscope imaging, EW, and HEL beam propagation model over the marine aerosol boundary layer for the integration of propagation modeling software into a system that will investigate absorption and scattering properties of marine aerosols, the interplay between aerosols and turbulence and impact on imaging and EW.

**Transition Program:** PMS 435, Submarine Electromagnetic Systems Program Office

**Topic Author:** Dr. Tariq Manzur; NUWC, [tariq.manzur@navy.mil](mailto:tariq.manzur@navy.mil)







# PEO USC SBIR 23.1 Topics

## N231-035: Automatic Target Recognition (ATR) in Complex Underwater Environments

- Develop adaptive Artificial Intelligence / Machine Learning (AI/ML) automatic target recognition (ATR) algorithms to support Autonomous Undersea Vehicle (AUV) operations in complex environments.

## N231-036: Long-Range Acoustic Communications System

- Develop a long-range service-request system capable of transmitting relay-assisted service-request messages in littoral water environments that is robust to doppler effects and provides low-probability-of-detection guarantees for the messaging signal and service-requesting sources.



# PEO USC SBIR 23.1 Topics

## N231-038: Perceptually Lossless Unmanned Underwater Vehicle (UUV) Sensor Data Compression

- Develop an innovative data compression capability for unmanned vehicle sensor data that can send large amounts of sensor data acoustically and over the horizon using a limited bandwidth.

## N231-042: Pressure-Tolerant Electronically-Steered Antennas (ESAs) for Satellite Communications

- Develop a electrically steerable, pressure tolerant phased array antennas for use on UUVs with the following RF electrical performance. This will enable closing high data rate communications links with proliferated low earth orbit (PLEO) satellite constellations, enabling transfer of large data file sets to/from the UUVs.



# PEO USC SBIR 23.1 Topics

## N231-048: Signal Processing for Underwater Explosion Detection and Localization

- Develop signal processing techniques to detect an underwater explosion and provide range and bearing information utilizing transducers from a program of record. Also, to include the current transducers that can be used to distinguish between two underwater explosions occurring over a short timescale.

## N231-055: Centralized Automated Fault Monitoring

- Develop the capability for an automated centralized network fault monitoring for networked equipment. Solution must provide and capture open interfaces to ingest data from Navy Programs of Record (PoRs), Contractor Furnished Equipment (CFE) cross communicate with all network enclaves. Include, monitoring data from devices considered traditional security devices as well as non-traditional components such as Machinery Control systems.

35



# PEO USC STTR 23.A Topic

## N23A-T013: (STTR) Unmanned Underwater Vehicle (UUV) Sensor Data Transformation Tool

- Develop a software tool to transform and create synthetic sensor data from information received by a different sensor.

# FY23 Topic Submissions

For further questions on HQ & DIR FY23 Topic Submissions, please contact:



## PEO Ships

- TM - Emily Novak  
[emily.s.novak.civ@us.navy.mil](mailto:emily.s.novak.civ@us.navy.mil)
- Coordinator – Dajon Daniel  
[dajon.n.daniel.ctr@us.navy.mil](mailto:dajon.n.daniel.ctr@us.navy.mil)



## PEO Integrated Warfare Systems (IWS)

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# SBIR Reauthorization

- The 2022 SBIR/STTR Reauthorization introduces some new requirements for the new FY23 BAA
  - A commercialization index has been increased for companies that have won many SBIR awards
  - Vetting of business ownership
    - Closer examination of small businesses' ties to foreign interests is required to better protect US technology

# SBIR/STTR Program Observations

- Defense Industrial Base is confronting issues in trade and STEM disciplines
  - Capacity: how can SBIR reward more companies?
- Improved proposal debriefs would benefit unsuccessful offerors
- Sustainment problems can be addressed using SBIR
- New Navy programs should incorporate using SBIR technology from inception
- Excessive time without award funding is hampering small business

# Questions and Open Discussion



# Backup Slides

# STTR 23.A Topics Released

Topic Number	PEO	Title	Critical Technology Area	TPOC Name	TPOC Phone	TPOC Email
N23A-T009	IWS	Generalizable Tactical Software AI/ML-informed Debloating	AI/ML; Cybersecurity	Meg Stout	(202) 498-6015	margaret.c.stout2.civ@us.navy.mil
N23A-T010	IWS	Sonar Dome Anti-Fouling Tracking and Prediction Tool	GWR	Patric Lockhart	(401) 832-4462	patric.k.lockhart.civ@us.navy.mil
N23A-T011	IWS	Innovative Optics for Wide Field of View Infrared Sensors	GWR	Benjamin Conley	(703) 588-0185	benjamin.r.conley4.civ@us.navy.mil
N23A-T012	SUBS	Atmospheric Aerosol Model and Data Collection Over the Marine Boundary Layer for Imaging/Radiofrequency (RF) and Laser Beam Propagation	DE; GWR	Tariq Manzur	(401) 832-6887	tariq.manzur.civ@us.navy.mil
N23A-T013	USC	Unmanned Underwater Vehicle (UUV) Sensor Data Transformation Tool	Autonomy; GWR	Andy Houck	(619) 226-5354	andy.a.houck.civ@us.navy.mil
N23A-T014	IWS	Automated Knowledge Base Extraction and Student Assessment	AI/ML	Meg Stout	(202) 498-6015	margaret.c.stout2.civ@us.navy.mil

# SBIR 23.1 Topics Released

Topic Number	PEO	Title	Critical Technology Area	TPOC Name	TPOC Phone	TPOC Email
N231-028	SHIPS	Artificial Intelligence/Machine Learning (AI/ML) Hull Mechanical & Electrical Controls	AI/ML; Autonomy; Cybersecurity	Michael Ryan	(215) 897-2016	michael.t.ryan121.civ@us.navy.mil
N231-029	IWS	Software Incident Report Capture and Scripting	AI/ML; Autonomy; Cybersecurity	Jonathan Maruska	(401) 832-3698	jonathan.d.maruska.civ@us.navy.mil
N231-030	IWS	Model Centric Safety Analysis Tool	AI/ML; GWR	Jess Riggle	(540) 653-2107	jess.e.riggle.civ@us.navy.mil
N231-031	IWS	Automated Cavitating Waterjet Cleaning Device	GWR	Scott Kasprzak	(202) 781-4415	scott.e.kasprzak.civ@us.navy.mil
N231-032	IWS	Launchable Mini Glider for Variable Payloads	Autonomy; GWR	Meg Stout	(202) 781-4233	margaret.c.stout2.civ@us.navy.
N231-033	SHIPS	Permanent Radio Frequency Transparent AN/SPY-1 Array Cover	GWR	William Flores	(805) 228-7101	william.flores37.civ@us.navy.mil
N231-034	IWS	Open Architecture Telemetry First Level Multiplexer with Array Power Distribution	GWR; Microelectronics	John Faella	(401) 832-6563	john.a.faella2.civ@us.navy.mil
N231-035	USC	Automatic Target Recognition (ATR) in Complex Underwater Environments	AI/ML; Autonomy	Andy Houck	(619) 226-5354	andy.a.houck.civ@us.navy.mil
N231-036	USC	Long-Range Acoustic Communications System	Networked C3	Pedro Forero	(619) 553-2670	pedro.a.forero.civ@us.navy.mil
N231-037	IWS	Gun Weapons Systems Synthetic Unmanned Aerial Systems Imagery Data Set	AI/ML; Autonomy	Benjamin Goldman	(540) 623-5099	benjamin.j.goldman.civ@us.navy.mil
N231-038	USC	Perceptually Lossless Unmanned Underwater Vehicle (UUV) Sensor Data Compression	AI/ML; GWR	Andy Houck	(619) 226-5354	andy.a.houck.civ@us.navy.mil
N231-039	SHIPS	Boat & Combatant Craft Electric Drive Propulsion System	GWR; Quantum Science	Christian Rozicer	(202) 781-3829	christian.e.rozicer.civ@us.navy.mil
N231-040	SHIPS	Rugged High-Temperature Superconductor Wire Bundles for Shipboard Installation	GWR	Peter Ferrara	(215) 897-8057	peter.j.ferrara.civ@us.navy.mil
N231-041	SHIPS	Improved Distance Measurement During Underway Replenishments (UNREPs)	Autonomy; GWR	Charles Boucher	(202) 781-0317	charles.t.boucher.civ@us.navy.mil
N231-042	USC	Pressure-Tolerant Electronically-Steered Antennas (ESAs) for Satellite Communications on Unmanned Undersea Vehicles (UUV)	Cybersecurity; Networked C3	Matt Atwood	(401) 832-6010	matthew.w.atwood2.civ@us.navy.mil
N231-043	SHIPS	Extreme Cold Weather Resistant Gasket Material	GWR	Charles Boucher	(202) 781-0317	charles.t.boucher.civ@us.navy.mil

# SBIR 23.1 Topics Released

Topic Number	PEO	Title	Critical Technology Area	TPOC Name	TPOC Phone	TPOC Email
N231-044	IWS	Expeditionary Virtualized Training Unit for Undersea Warfare Decision Support System (USW-DSS)	GWR	Steven Roodbeen	(401) 832-7190	steven.a.roodbeen.civ@us.navy.mil
N231-045	IWS	Multi-Spectral, Multi-Sensor Image Fusion	AI/ML; GWR	Roger Goetz	(812) 854-3440	roger.n.goetz.civ@us.navy.mil
N231-046	SUBS	Revolutionized Undersea Training Target Motors	GWR	Robert Phillip	(401) 832-3730	robert.j.phillip3.civ@us.navy.mil
N231-047	SUBS	Alternative Materials and Fabrication Processes for US Navy Propulsor Shafting	GWR	David Pohlit	(301) 227-8851	david.j.pohlit.civ@us.navy.mil
N231-048	USC	Signal Processing for Underwater Explosion Detection and Localization	AI/ML; Autonomy	Steve Johnson	(202) 781-1403	steven.a.johnson7.civ@us.navy.mil
N231-049	IWS	Artificial Intelligence/Machine Learning Video Processing and Packaging	AI/ML; Networked C3	Steven Roodbeen	(401) 832-7190	steven.a.roodbeen.civ@us.navy.mil
N231-050	SHIPS	Autonomous Crane System for Payload Motion Control	AI/ML; Autonomy; GWR	David Liese	(202) 781-2591	david.l.liese.civ@us.navy.mil
N231-051	HQ	Underwater Diver-Applied Composite Patch Repair for Crack Arresting	GWR	Dustin Shelley	(202) 781-3945	dustin.a.shelley.mil@us.navy.mil
N231-052	HQ	Advanced Reliable Wide-Range Hydrodynamic Hull Appendage	GWR	Lawrence Murphy	(703) 505-9409	lawrence.p.murphy.civ@us.navy.mil
N231-053	CV	Improved Electromechanical Actuators for Aircraft Carrier Flight Deck Applications	GWR	Maboury Gueye	(445) 227-0090	maboury.gueye.civ@us.navy.mil
N231-054	SUBS	Structural Design Process for High-Cycle Fatigue Performance of Composite Materials	GWR	David Pohlit	(301) 227-8851	david.j.pohlit.civ@us.navy.mil
N231-055	USC	Centralized Automated Fault Monitoring	Autonomy; Networked C3	Yara Fakhoury	(202) 427-9632	yara.n.fakhoury.civ@us.navy.mil
N231-056	IWS	Intelligent Capture of Digital Imaging for Systems Engineering, Modeling, and Training	AI/ML; GWR	Marcin Malec	(812) 854-8327	marcin.s.malec.civ@us.navy.mil