



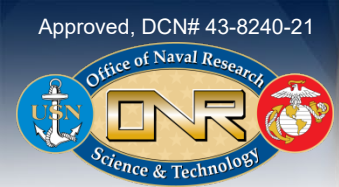
The Office of Naval Research – Science and Technology in Support of the US Navy and Marine Corps

Dr. Joan S. Cleveland
Director, University Research Initiative
Office of Naval Research



Research Fields of Interest to ONR

Code 31 Information, Cyber and Spectrum Superiority	Code 32 Ocean Battlespace & Expeditionary Access	Code 33 Mission Capable, Persistent & Survivable Naval Platforms	Code 34 Warfighter Performance	Code 35 Aviation, Force Projection & Integrated Defense	Code 36 Naval Accelerator
<p>Supports research in Math, Electronics, Computer & Information Sciences and their applications in Command & Control, Communications, Cyber, EW, Intelligence, Surveillance and Reconnaissance</p> <p>Applied & Computational Analysis</p> <p>Communications and Networking</p> <p>Computational Methods for Decision Making</p> <p>Electronic Warfare</p> <p>EO/IR Sensors and Sensor Processing</p> <p>Machine Learning, Reasoning and Intelligence</p> <p>Mathematical Optimization</p> <p>Precision Navigation & Timekeeping</p>	<p>Explores S&T in the oceanographic and meteorological observations, modeling/prediction in the battlespace environment; submarine detection/classification; and mine warfare</p> <p>Arctic and Global Prediction</p> <p>Coastal Geosciences</p> <p>Marine Mammals and Biology</p> <p>Marine Meteorology</p> <p>Maritime Sensing</p> <p>Ocean Acoustics</p> <p>Ocean Engineering & Marine Systems</p> <p>Physical Oceanography</p> <p>Research Facilities</p> <p>Space Environment</p> <p>Undersea Signal Processing</p>	<p>Develops and delivers technologies that enable superior warfighting and energy capabilities for naval forces, platforms and undersea weaponry</p> <p>Advanced Sea Platforms</p> <p>Naval Engineering</p> <p>Acoustic Transduction</p> <p>Electrochemical Materials</p> <p>Nanomaterials</p> <p>Organic Photovoltaics</p> <p>Propulsion Materials</p> <p>Structural Materials</p> <p>Antifouling/Fouling Release Coatings</p> <p>NDE & Prognostics Sensors</p> <p>Polymer Matrix Composites</p> <p>Cellular Materials</p> <p>Water Desalination and Purification</p> <p>Corrosion Control</p> <p>Undersea Weapons</p>	<p>Enhances warfighter effectiveness & efficiency through bioengineered & bio-robotic systems, medical technologies, improved training & system design</p> <p>Biometrics</p> <p>Cognitive Sciences</p> <p>Computational Neurosciences</p> <p>Social, Cultural & Behavioral Modeling</p> <p>Training & Education</p> <p>Auditory Neuroscience</p> <p>Bio-inspired Signature Management</p> <p>Biological & Physiological Monitoring & Modeling</p> <p>Gut Microbiology</p> <p>Marine Mammal Health</p> <p>Microbial Electrochemistry\</p> <p>Stress Response</p> <p>Synthetic Biology</p> <p>Undersea Medicine</p>	<p>Supports the Navy's power projection needs, fostering technology development of naval aircraft, structures, propulsion, autonomy, energetics, directed energy and electric weapons</p> <p>Directed Energy & Counter-Directed Energy</p> <p>Energetic Materials</p> <p>Science of Autonomy</p> <p>Turbine Engine Technologies</p> <p>Flight Dynamics & Control</p> <p>Hypersonics</p> <p>Propulsion</p> <p>Structures & Materials</p>	<p>Centralizes the innovation pipeline at naval organizations & establishes collaborations between the Naval Research Enterprise, academia, and industry</p> <p>Small Business Innovation Research (SBIR) & Small Business Technology Transfer (STTR) programs</p> <p>Technology Transfer</p> <p>Naval Innovation Process Adoption</p> <p>Naval Enterprise Partnership Teaming with Universities for National Entrepreneurship</p> <p>Technology Bridges to promote collaboration across the NR&DE, other federal & state agencies, small businesses, & academia</p>



DoD Modernization Priorities

Undersecretary of Defense for Research & Engineering (USD(R&E), April 2018.

- Advanced Autonomy
- Artificial Intelligence
- Biotechnology
- Cybersecurity
- Directed Energy
- Fully Networked C3 (Command & Control, Communications, Cyber)
- Hypersonics
- Microelectronics
- Quantum Science
- Space Offense & Defense
- 5G



ONR Global ▶ Marine Corps Warfighting Lab ▶ Naval Research Laboratory ▶ Naval Research Advisory Committee ▶

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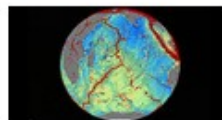
The Office of Naval Research executes, and promotes the science and technology programs of the U.S. Navy.

- 31 Information, Cyber and Spectrum Superiority
- 32 Ocean Battlespace and Expeditionary Access
- 33 Mission Capable, Persistent and Survivable Naval Platforms
- 34 Warfighter Performance
- 35 Aviation Force Protection and Integrated Defense

Departments

- 31 Information, Cyber and Spectrum Superiority ▶
- 32 Ocean Battlespace and Expeditionary Access ▶
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- 34 Warfighter Performance ▶
- 35 Aviation Force Protection and Integrated Defense ▶

Maurice Ewing Medal

[Read press release](#)

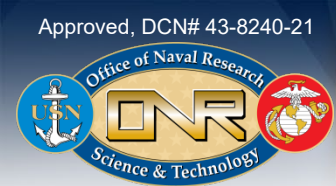
For creating the most comprehensive global map of the ocean floor, ONR performer Dr. David Sandwell received the Charles A. Whitten Medal, sponsored by the American Geophysical Union.

Quick Links

Get shortcuts to commonly requested topics below:

- [Download the Naval R&D Framework](#)
- [Watch a video about the role of naval research](#) ▶
- [Read Future Force magazine](#) ▶
- [Explore research funding opportunities](#)





Example Research Funding Opportunities at ONR

FY21 Long Range Broad Agency Announcement (BAA) for Navy and Marine Corps Science and Technology N00014-21-S-B001

[N00014-21-S-B001](#) (PDF - 1.34 MB)

[N00014-21-S-B001 Amendment 0001](#) (PDF - 1.54 MB)

[N00014-21-S-B001 Amendment 0002](#) (PDF - 1.46 MB)

Published: October 8, 2020 12:00 AM local Eastern time | Full Proposals will be accepted until September 30, 2021 12:00 AM local Eastern time

Fiscal Year (FY) 2022 Department of Defense Multidisciplinary Research Program of the University Research Initiative (MURI) N00014-21-S-F003

[N00014-21-S-F003](#) (PDF - 899.01 KB)

[N00014-21-S-F003 Amendment 0001](#) (PDF - 890.88 KB)

[N00014-21-S-F003 Amendment 0002](#) (PDF - 934.86 KB)

[N00014-21-S-F003 Amendment 0003](#) (PDF - 941.36 KB)

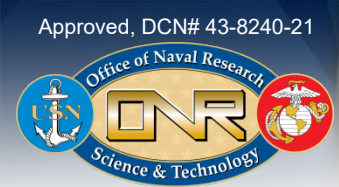
[N00014-21-S-F003 Amendment 0004](#) (PDF - 943.79 KB)

Published: March 22, 2021 12:00 AM local Eastern time | Full Proposals will be accepted until September 27, 2021 11:59 PM local Eastern time | White Papers due no later than June 7, 2021 11:59 PM local Eastern time

FY21 Department of Navy (DoN) Science, Technology, Engineering & Mathematics (STEM), Education and Workforce Program N00014-21-S-F004

[N00014-21-S-F004](#) (PDF - 1.06 MB)

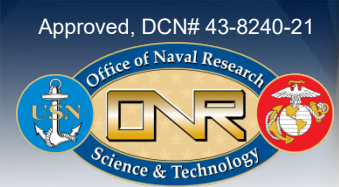
Published: March 31, 2021 12:00 AM local Eastern time | Full Proposals will be accepted until October 8, 2021 11:59 PM local Eastern time | White Papers due no later than May 28, 2021 11:59 PM local Eastern time



University Research Initiatives

University Research Initiatives fund promising new research, stimulate innovation, and attract outstanding researchers to naval-relevant research projects; proposals accepted from academic institutions only.

- The **Multidisciplinary University Research Initiative (MURI)** involves teams of researchers investigating high priority topics and opportunities that intersect more than one traditional technical discipline.
Goal: publish FOA in Mar; white papers due May; proposals due Sep.
- The **Defense University Research Instrumentation Program (DURIP)** supports university research equipment/infrastructure essential to high-quality naval-relevant research.
Goal: publish FOA in Feb; proposals due in May.
- The **Vannevar Bush Science & Engineering Faculty Fellowship (VBFF)** (managed by Office of the Under Secretary of Defense, Basic Research Office) provides extensive, long-term financial support to distinguished university faculty and staff scientists and engineers to conduct unclassified, basic research/"blue sky" on topics of interest to DoD.
Goal: publish FOA in Jun; proposals due in Dec. or Jan.



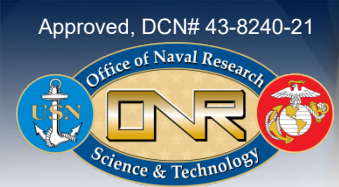
ONR Young Investigator Program (YIP)

- Support the best and brightest early-career academic researchers whose scientific pursuits show outstanding promise for supporting the Department of the Navy, while also promoting their professional development.

Goal: publish FOA in Mar; proposals due in Jun.

Successful Candidates

- Contact ONR Program Officer before submitting proposal.
 - PO comment: *"if only the researcher would have contacted me first – this would have been a great proposal!!"*
- Research the Program's / Program Officer's research interests and portfolio.
- Become familiar with Navy terminology & where your technology fits by reviewing the ONR website, attending national conferences, asking questions.
- Show a record of publishing in peer-reviewed journals.
- Include a strong letter of support from University and/or Department (required for Young Investigator Program).
- Include a complete curriculum vitae with white paper and/or proposal package.



Internships/Faculty Programs

Naval Research Enterprise Internship Program (NREIP)

- 10-week paid undergraduate & graduate research internship opportunity at a naval laboratory or warfare center.
- Interns gain real-world, hands-on experience & research skills while being introduced to Navy & Marine Corps science & technology environment.

Science and Engineering Apprenticeship Program (SEAP)

- 8-week paid high school apprenticeship opportunity at a naval laboratory or warfare center.
- Apprentices gain real-world, hands-on experience & research skills while being introduced to Navy & Marine Corps science & technology environment.

Summer Faculty Research Program

- 10-week paid program providing faculty members from academic institutions an opportunity to participate in research of mutual interest to faculty member and peers at a naval laboratory or warfare center.
- Participants have an opportunity to establish continuing research relationships with the R&D personnel of the host laboratories.



Thank you!

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