

CARDEROCK



NAVAL SEA SYSTEMS COMMAND

WARFARE CENTERS



CARDEROCK DIVISION

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Naval Surface Warfare Center (NSWC) Carderock Division is the Navy's center of excellence for ships and ship systems. For over 100 years, Carderock has helped preserve and enhance the nation's presence on and under the seas. Carderock is the full-spectrum research and development, test and evaluation, engineering, and Fleet support organization for the Navy's ships, submarines, military watercraft, and unmanned vehicles with insight into new concepts and technologies for the Navy Fleet of the 21st century. The Division's expertise spans more than 40 disciplines, from naval architecture and marine engineering to electrical and mechanical engineering to computer engineering and physics.

Carderock specializes in ship design and integration; environmental quality systems; hull forms and propulsors; structures and materials; signatures, silencing systems, and susceptibility; and vulnerability and survivability systems.

Most of the work is concentrated at one major site: our headquarters in West Bethesda, Maryland. Carderock Division's unique laboratories, modeling and simulation facilities, at-sea-assets, and large-scale, land-based engineering and test sites at seven locations across the country contribute to the full-spectrum nature of our mission.

Navy and maritime communities have come to depend on our expertise and innovative spirit in developing advanced platforms and systems, enhancing naval performance, reducing operating costs, and addressing the Navy's evolving mission.

Carderock Division will continue to solve challenging engineering problems to meet future Fleet needs in the following areas: new hull forms, unmanned vehicles, all-electric warships, increased stealth, improved survivability, reduced manning, human systems integration, and high-speed ships.

Mission

To provide full-spectrum research and development, test and evaluation, analyses, acquisition, and Fleet support for the Navy's ships, ship systems, and associated Navy logistics systems. Specific emphasis is to provide the core technical capabilities required for the integration of surface and undersea vehicles and associated systems, to develop and apply science and technology associated with naval architecture and marine engineering, and to provide support to the maritime industry.

Vision

To be the Navy's trusted partner for identifying and providing world-class, innovative, and cost-effective solutions for advanced ship and ship systems, for providing technical solutions to the warfighter and to keep our Fleet at sea.

Thrust Areas

Surface Ship Design	Advanced Signatures
Submarine Design	Power and Energy
Ship Design Tools	Unmanned Systems
Rapid Prototyping & Experimentation	Additive Manufacturing
Workforce Retention & Development	Cybersecurity

Technical Capabilities

- Ship and Submarine Design and Integration
- Ship and Submarine Acquisition Engineering
- Ship and Submarine Systems Concepts, Technologies, and Processes
- Combatant Craft and Expeditionary Vehicles
- Unmanned Vehicles Naval Architecture and Marine Engineering
- Hull Forms and Fluid Dynamics
- Propulsors
- Surface, Undersea, and Weapon Vehicle Materials and Manufacturing Technology
- Surface and Undersea Vehicle Structures
- Alternative Energy and Power Sources R&D
- Liquid Waste Management, Science and Systems
- Solid Waste and Hazardous Material Management, Science and Systems, and Ships and Subs Systems Safety
- Surface, Undersea and Expeditionary Vehicle Vulnerability Reduction and Protection
- Surface and Undersea Vehicle Underwater Signatures, Silencing Systems, and Susceptibility
- Surface and Undersea Vehicle Non-Acoustic Topside Signatures, Silencing Systems, and Susceptibility
- Radiation Detection Technology Research and Management

Major Facilities

- David Taylor Model Basin, West Bethesda, MD
- Maneuvering and Seakeeping Basin, West Bethesda, MD
- Acoustic Research Detachment, Bayview, ID
- Deep Submergence Pressure Tank, West Bethesda, MD
- Large Cavitation Channel, Memphis, TN
- Anechoic Flow Facility, West Bethesda, MD
- Structural Evaluation Laboratory, West Bethesda, MD
- Underwater Explosives Test Pond, West Bethesda, MD
- Ship Materials Technology Center, West Bethesda, MD
- Magnetic Fields Laboratory, West Bethesda, MD
- Southeast Alaska Acoustic Measurement Facility (SEAFAC)
- South Florida Ocean Measurement Facility (SFOMF), Ft. Lauderdale, FL

For additional information, contact:

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Web: www.navsea.navy.mil/Home/WarfareCenters/NSWCCarderock.aspx
Email: CRDIVCPAO@navy.mil

For employment opportunities, send resume to:

College Recruiting and Outreach
NSWC Carderock Division
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Carderock Division Sites

