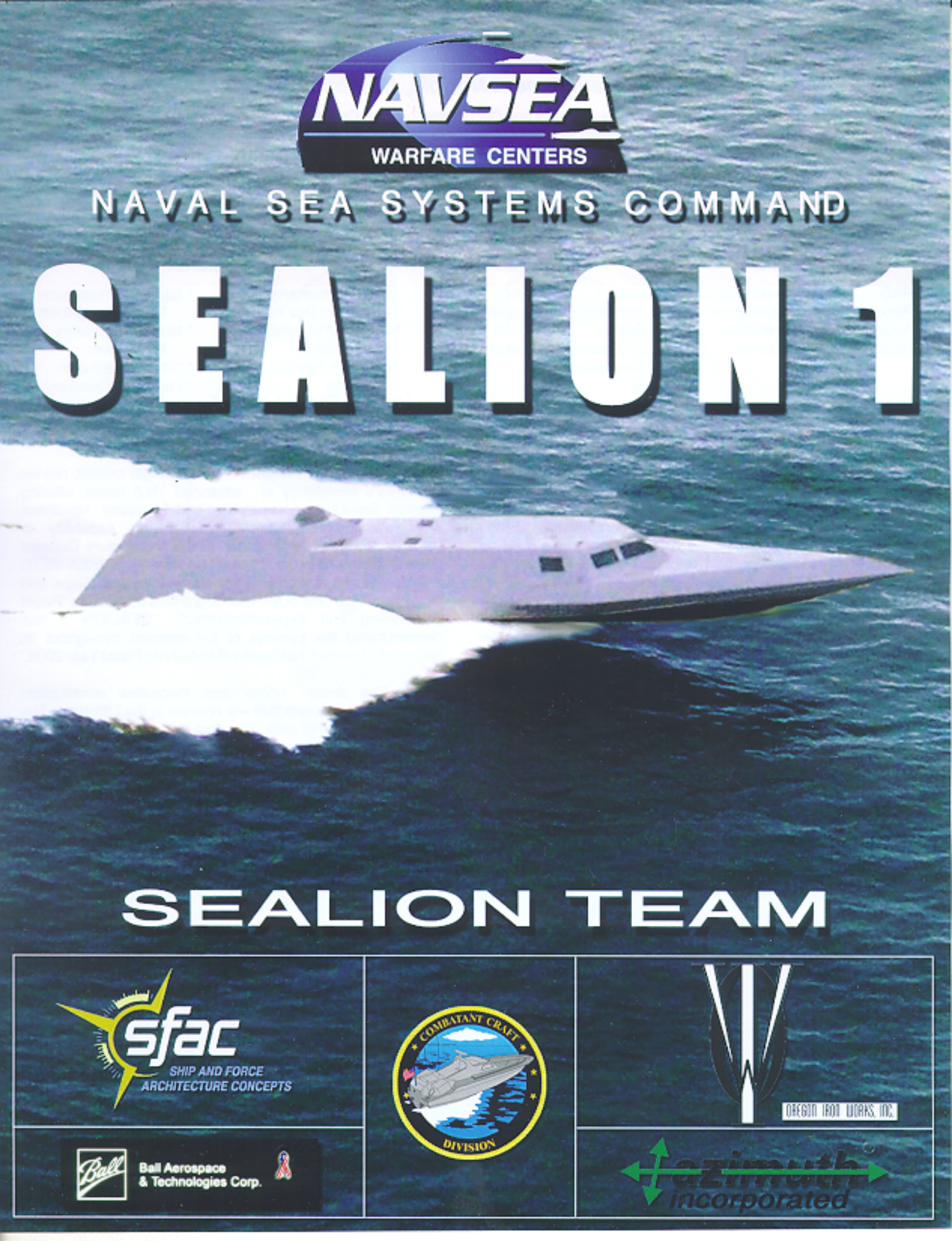

NAVSEA
WARFARE CENTERS
NAVAL SEA SYSTEMS COMMAND
SEALION 1
SEALION TEAM
sfac
SHIP AND FORCE
ARCHITECTURE CONCEPTS
COMBATANT CRAFT
DIVISION
OREGON IRON WORKS, INC.
Ball
Ball Aerospace
& Technologies Corp.
azimuth
incorporated

NSWC Carderock Division, Detachment Norfolk, Combatant Craft Division (Code 23)

The Combatant Craft Division (CCD) serves as the Navy and DoD center for Total Craft Systems Engineering. Located in Hampton Roads, Virginia, near the largest and most varied inventory of DoD combatant craft and boats in the United States, CCD provides technical expertise to the U.S. Navy, Army, Marine Corps, Special Warfare/Special Operations, Air Force, Coast Guard, and other DoD and non-DoD activities. With a technical staff of 110+ naval architects, marine engineers, and technicians bringing over 1200 years of experience and expertise in marine engineering to bear on their mission, CCD provides full spectrum and full life-cycle support for combatant craft, boats, and other watercraft.

Full Life-Cycle

* R&D
* Requirements
* Acquisition
* Design
* Construction
* Acceptance
* Operations
* Disposal

Full Spectrum

* Naval Architecture
* Systems Engineering
* Survivability
* HSI
* T&E
* Logistics
* LCM
* Refurb & Mod

Expertise

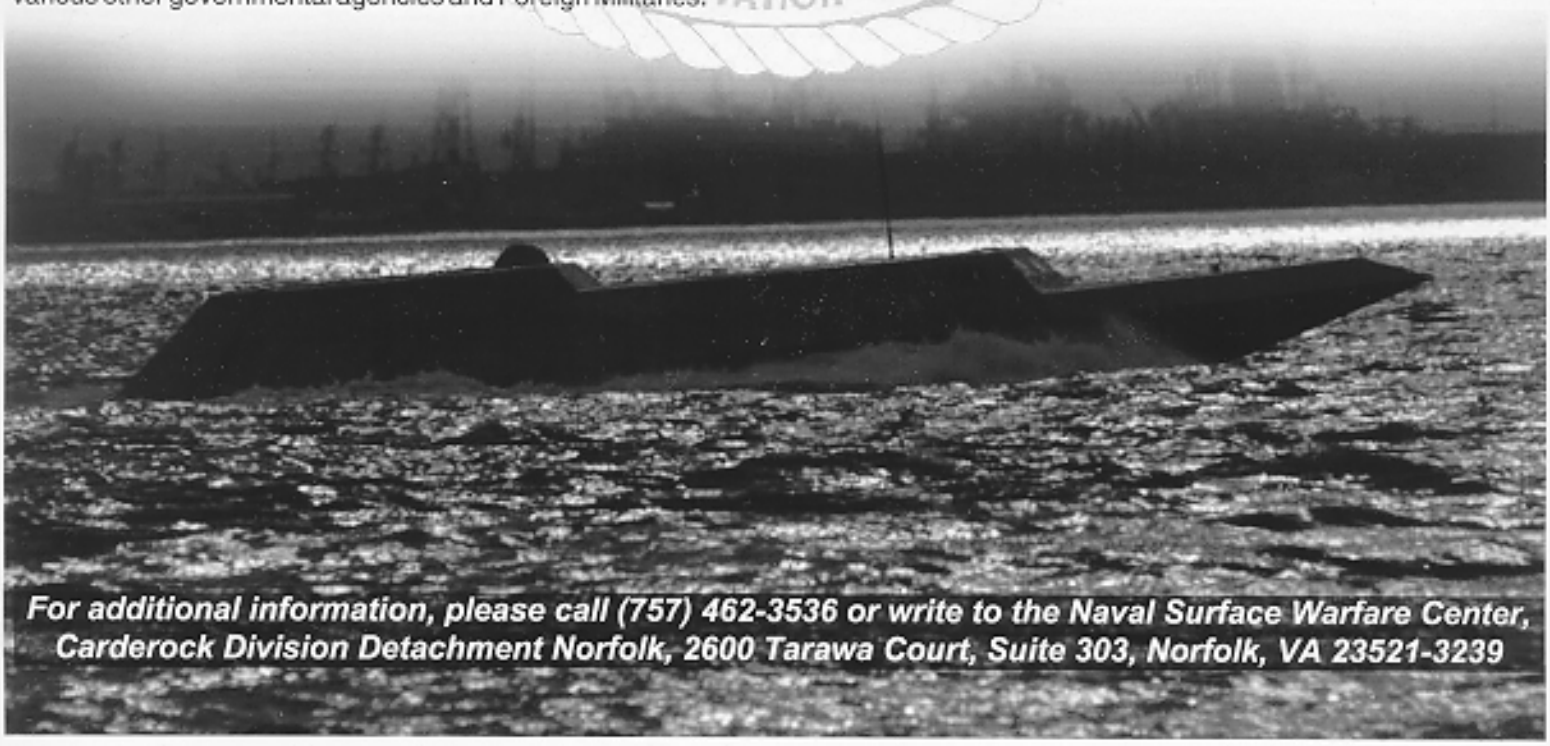
* High Performance Craft
* Advanced Hull Forms
* Composites, Metals, & Inflatables
* COTS to Specialized Design
* Riverine, Littoral, & Open Ocean
* Signature Reduction & Design Integration
* Missions Systems Integration
* C4ISR Integration
* Launch & Recovery Systems

The U.S. Navy has accepted delivery of a Technology Demonstration Craft built by Oregon Iron Works (OIW), a metals manufacturing company headquartered in Clackamas, OR. The craft, called "SEALION 1," was delivered in January 2003. Since delivery, the craft has undergone extensive performance tests and has been used as a test bed for Littoral Warfare Concepts.

SEALION 1 was designed by the Combatant Craft Division of the Naval Surface Warfare Center, Carderock Division (NSWCCD). Carderock Division is a field activity of the Naval Sea Systems Command, providing Research, Development, Test and Evaluation, Fleet Support, and In-Service Engineering for Navy and DoD Surface and Undersea Vehicle Hull, Mechanical and Electrical Systems. The Combatant Craft Division is recognized by DoD as the Technical Authority for Boats and Craft and provides Technical and Programmatic Support for all DoD Components, as well as various other governmental agencies and Foreign Militaries.

SEALION 1, about 71 feet in length overall, refines the Navy's knowledge of advanced hull forms, offering superior Sea-keeping capabilities and improved readiness to crew and passengers. This design capability is incorporated in the Ship and Force Architecture Concept (SFAC) and managed by Michael Bosworth (NAVSEA 05D1) to help define requirements for Navy-After-Next Ships and Ship Systems. One of the founding pillars of SFAC is "Rapid Prototyping and Experimentation." SEALION 1 has demonstrated the success of this concept throughout its testing phase which has been extended into Fiscal Year 2006.

The design incorporates innovative construction techniques for vessels that will operate in the Littorals. The Navy has used this craft as a test-bed for Littoral Warfare Concepts and equipment. The Craft continues to undergo various testing to fully assess each of its technical aspects.



For additional information, please call (757) 462-3536 or write to the Naval Surface Warfare Center, Carderock Division Detachment Norfolk, 2600 Tarawa Court, Suite 303, Norfolk, VA 23521-3239