



## **Northrop Grumman to Develop Lithium-Ion Battery For Advanced Seal Delivery System**

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ANNAPOLIS, Md., Aug. 23, 2001 -- Northrop Grumman Corporation (NYSE:NOC) has been awarded a \$4 million contract by the U.S. Naval Sea Systems Command (NAVSEA) for the development and integration of lithium-ion battery technology for the U.S. Special Operations Force's new Advanced SEAL Delivery System (ASDS).

The ASDS is designed and built by Northrop Grumman's Oceanic & Naval Systems business unit. It is a mini-submarine intended to clandestinely carry Navy SEAL teams and their combat gear to and from hostile shores. This first-of-its-kind system is transported to a mission area atop an attack-class nuclear submarine, or it can be airlifted with its land transport vehicle by C-5 or C-17 aircraft for insertion and deployment to littoral theaters worldwide.

Work on the ASDS battery system is being developed in conjunction with Alliant Techsystems, Inc. of Horsham, Pa.

"The emerging lithium-ion battery technology promises a 20- to 40-times improvement in life cycle and reduced operational cost when compared with traditional battery technologies," said Bruce Ballantyne, director of Special Defense and Submersible Programs for Northrop Grumman. "This technology enables the Navy to expand the types of missions the ASDS can perform."

Northrop Grumman's Oceanic and Naval Systems, a business unit of the company's Electronic Systems sector, designs, produces, tests and supports some of the world's most sophisticated undersea systems.

Headquartered in Baltimore, Md., Northrop Grumman's Electronic Systems sector is a world leader in the design, development and manufacture of defense electronics and systems including airborne radar systems, navigation systems, electronic warfare systems, precision weapons, air traffic control systems, air defense systems, communications systems, space systems, marine systems, oceanic and naval systems, logistics systems, and automation and information systems.

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