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## Ship Integration of Energy Scavenging Technology for Sea Base Operations.

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**Abstract :** Offshore renewable energy scavenging methods have become a major area of research in recent years. The U.S. Navy is especially interested in the ocean potential to provide clean energy and fresh water from sources like wind, wave, solar, current, and

biological resources. It is important for the Navy to consider the integration of energy collection technologies into a mobile resupply platform. This scavenging ship will reduce the need for costly energy transport from shore to ship, reduce the carbon footprint made by naval sustainment, and provide fresh water and energy in cases of disaster relief. Solar, wind and wave energy are the three sources that have been found to be most reliable and abundant for energy scavenging on ships. This investigation will provide background information about energy scavenging methods and energy potential for different locations around the world and different existing shipboard systems. This information can be used for future preliminary design of an energy scavenging ship.

**Descriptors :** \*ENERGY HARVESTING , \*RENEWABLE ENERGY , ENERGY CONVERSION , ENERGY TRANSFER , FRESH WATER , OCEAN CURRENTS , OFFSHORE , PLATFORMS , RELIABILITY , SEA BASED , SHIPBOARD

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