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**Jeju Island:** *see* **Cheju Island**

**Jellyfish:** *see* **Stinger**

**Jet Propulsion** Jet propulsion has been developed as an alternative to the propeller of a **vessel**. In contrast to the standard propeller, a jet-propelled boat has **water** entering and exiting via a jet drive. While a propeller pushes water through in a more widespread way, a jet engine generates a single stream line behind the boat. There are no rudders in a jet boat, and steering is accomplished through directing the exit flow of the jet flow in one direction or the other, similar to a propeller-driven vessel with an **azimuthing propulsion** system. The advantages of such systems are that they deliver a much higher manoeuvrability, as well as greatly increased acceleration values. The performance-based advantages are augmented by safety benefits, both for swimmers and for marine wildlife. Due to the lack of a propeller, there is no risk of propeller injuries, which is of particular advantage for smaller boats operating close to **beaches** and swimming areas, as well as for vessels used for marine wildlife viewing operations such as **whale watching** and **dolphin watching**.

***Related internet sources***

UltraJet: http://www.ultradynamics.com/sections/educational/why.asp

Gonnason Boats: http://www.gonnasonboats.com/jetpropulsionvspropeller.htm

Michael Lück

**Jet Ski** The jet ski is a brand of **personal watercraft** first produced by the Kawasaki Motors Corporation, Japan. Kawasaki released its first jet ski within the USA in 1973; other companies such as Yamaha and Bombardier Inc. have released similar products. Since then, jet ski has become a term synonymous with the various types of personal watercraft in which the operator stands, sits or kneels. The jet ski is a small boat that was initially designed to carry one individual quickly and conveniently over the **water**. Currently, the sizes and types of jet skis and similar models from competitors are capable of carrying one to three or four people and can be used for **waterskiing**. Most models use a two-stroke or four-stroke engine to propel and steer the boat with a high-powered stream of water.

Jet skis are appealing due to their lower price in comparison with other watercraft, and their ease of use, speed and manoeuvrability. The use of jet skis and other personal watercraft has become a common form of water-based **outdoor recreation** near **beaches**. They are commonly rented to tourists staying at **coastal resort destinations**. Jet skis are becoming popular for towing surfers in and out of areas with large **waves**. All types of personal watercraft are associated with personal injuries, **impacts** on **marine** flora and fauna, waterway obstructions and noise, water and air pollution. Various regions and countries have implemented legislation on manufacturers and users to reduce the negative impacts that can occur due to personal watercraft use.

***Related internet sources***

Kawasaki: http://www.kawasaki.com

Personal Watercraft Industry Association: http://www.pwia.org/index.html

Cory Kulczycki

**Jetfoil** A jetfoil is an advanced type of passenger-carrying hydrofoil built originally by the Boeing company. Kawasaki Heavy Industries, Ltd acquired the manufacturing licence from Boeing, thereby assuming this trademark. Jetfoils have been in service worldwide since 1975 for **ferry** routes. This is a 'flying machine on the sea', which gets its lifting power not from air but from seawater. The

jetfoil goes ahead by the thrust force generated by the water **jet propulsors** powered by gas turbine engines, and flies over the water surface by the dynamic lift generated by the fully submerged forward and aft foils fixed to the hull by struts. It has a sophisticated computerized control system to maintain its stability in all waters. Cruising speed is about 80 km/h.

***Related internet sources***

Boeing: http://www.boeing.com/history/boeing/hydro.html

Kawasaki: http://www.kjps.co.jp/english/emini/emokuji.html

International Hydrofoil Society: http://foils.org

TurboJet: http://www.turbojet.com.hk/index.htm

Fast ferry information: http://www.fastferryinfo. com

Dagmar Fertl

**Jetty** A jetty is a stone, concrete or wooden structure that protrudes into a body of water. Its purpose is either to protect a **shoreline** or **harbour** from rough seas and erosion or to accommodate **vessels** for docking. Jetties offer an accessible location for **fishing** and birdwatching. **Shorebirds** often feed along jetties, and **seabirds** can be seen from them.

Ashley Dayer

**Jonah** The Book of Jonah (Holy Bible) tells how the prophet refused God's command to sail to Nineveh, and ended up in the belly of a great fish, presumably a **whale**, for 3 days and nights. Jonah's eventual repentance led to him being vomited ashore, possibly in modern-day Lebanon.

***Related internet sources***

Israel Ministry of Tourism: http://www.goisrael. com

Nabi Younes in Lebanon: http://www.lebanon.com/tourism/nabiyounes.htm

Nineveh: http://www.mnsu.edu/emuseum/archaeology/sites/middle_east/nineveh.html

Jennifer Laing
Geoffrey Crouch

**Jones Act** The Jones Act, as it is known, is a **cabotage law** that applies to domestic maritime transportation in the USA. Strictly speaking, the Jones Act is not a separate legislative act but rather is part of the Merchant Marine Act of 1920 (Section 27 [46 U.S.C. 883; 19 CFR 4.80 and 4.80(b)]). Section 27 of the act was named after its sponsor, Senator Wesley L. Jones.

The overall intent of the Merchant Marine Act of 1920 was to strengthen the competitive position of the US merchant marine fleet. The Jones Act portion of the legislation restricts the domestic transportation of cargo within the USA to domestic water carriers. A few exceptions have been made over time when an appropriate US-flag **vessel** was not available. The Jones Act does not strictly apply to the domestic transportation of passengers (including **cruise lines**). For the latter segment, the **Passenger Vessel Services Act of 1886** is the applicable statute. The Jones Act also provides for compensation for workers injured on vessels.

Efforts have been undertaken recently by various groups to weaken or eliminate the cabotage restrictions of the Jones Act. The main argument made in this regard is that the cabotage restrictions result in significantly increased marine transportation costs of goods. This may be especially relevant for US non-contiguous states and territories such as Alaska, **Hawaii** and Puerto Rico, where other transportation options are not really available. To date, however, no such changes have been seriously considered by the US Congress.

***Related internet sources***

American Maritime Congress: http://www.us-flag.org/jonesact.html

The Transportation Institute: http://www.trans-inst.org/2.html

US Merchant Marine Act of 1920: http://www. marad.dot.gov/publications/complaw03/Merchant%20Marine%20Act,%20of%201920.htm

Fredrick M. Collison

***Journal of Ecotourism*** The *Journal of Ecotourism* (JOE, ISSN 1472-4049) examines ecological, economic and social aspects of **tourism**. Arcticles cover empirical, conceptual and theoretical research regarding ecotourism planning, development, management and good practice, including investigations that compare and contrast ecotourism against other forms of tourism. The journal includes topics such as **marine ecotourism**, and the effects of tourism on coastal and marine **environments**.