



The HB Ocean Adventure Schools Programme is a Galway Stopover Volvo Ocean Race 2008-2009 Legacy Initiative. It introduces teachers and students in primary and secondary schools throughout Ireland to the sport of sailing, the marine environment, Ireland and its history with the sea, a variety of geography lessons and marine careers.

The Green Dragon took off from Qingdao on Sunday. The fleet will sail an epic 12,500 miles through two scoring gates and onto Rio. Navigator Ian Moore and helmsman/trimmer Anthony Merrington will stand down for the 12,500 mile leg to Rio. They will both re-join the crew in Rio for the remainder of the race. Taking their place onboard the Dragon will be Dutchman Wouter Verbraak as navigator, and Volvo Ocean Race first timer Chris Main from New Zealand.

OCEAN FACTS & CLASSROOM TASKS...

- **A helmsman** is a person who steers a ship, sailboat, submarine, or other type of maritime vessel. In the merchant marine, the person at the helm is usually an able seaman, particularly during ship arrivals, departures, and while maneuvering in restricted waters or other conditions requiring precise steering. An ordinary seaman is commonly restricted to steering in open waters. Moreover, military ships may have a seaman or quartermaster at the wheel. Learn more about this at www.letsdoitschools.com

A professional helmsman maintains a steady course, properly executes all rudder orders, and communicates to the officer on the bridge utilising navigational terms relating to ship's heading and steering. A helmsman relies upon visual references, a magnetic and gyrocompass, and a rudder angle indicator to steer a steady course. The mate or other officer on the bridge directs the helmsman aboard merchant or navy ships.

Clear and exact communication between the helmsman and officer on the bridge is essential to safe navigation and ship handling. Subsequently, a set of standard steering commands, responses by the helmsman, and acknowledgement by the conning officer are widely recognized in the maritime industry. The helmsman repeats any verbal commands in order to demonstrate that the command is heard and understood. The International Convention on Standards of Training, Certification and Watchkeeping for Seafarers(STCW) requires that helmsman must be able to understand and respond to helm orders in English

- **A navigator** is the person onboard a ship responsible for its navigation. The navigator's primary responsibility is to be aware of ships position at all times. Responsibilities include planning the journey, advising the Captain of estimated timing to destinations while en route, and ensuring hazards are avoided. Learn more about the Green Dragon team and responsibilities onboard at www.greendragonracing.com

The navigator is in charge of maintaining the ship's nautical charts, nautical publications, and navigational equipment, and generally has responsibility for meteorological equipment and communications.