Hydrographic Survey

The Port of Melbourne is Australia’s busiest container and general cargo port. Many of the items in your home are made or grown in locations all around the world and come to Melbourne on ships. These large commercial ships travel to the Port of Melbourne via the Great Shipping Channel, the main shipping channel in Port Phillip Bay.

The Port’s Hydrographic Survey group monitors the depths (bathymetry) of all the shipping channels leading to the Port of Melbourne to ensure that ships can navigate into the port safely. They also detect and identify any obstacles within channels and waterways.

This information is collected using global positioning technology, more advanced than what you might find in a smartphone or a car navigation system, and a specialised device called an echosounder. Echo sounders map the depth of the water by bouncing sound waves off the sea floor. The longer it takes for the sound wave to return to the sensor, the deeper the sea floor. As the survey vessel moves across the water, a picture of the seabed is gradually created, with different colours showing different depths.