

Tsunami

Written by Ng Moon-chiu March 2011

On 11 March 2011, a magnitude 9.0 earthquake occurred off the Pacific coast of Japan and generated a trans-Pacific tsunami which devastated the north-eastern coast of Honshu with the waves reaching far places such as California of the United States and New Zealand. Video clips taken by witnesses showed that boats in Japanese harbours and bays were subject to the violent force of the tsunami. But the effect on marine vessels in the open sea is very different.

Tsunami, a word originated from Japanese, means harbour waves. It is only in harbours, beaches or bays when tsunami waves shoal up and become destructive. In the ocean, a tsunami has a long wavelength of over a hundred of kilometres and generally a small height of one metre or less (reference: [Tsunami, The Great Waves](#), published by UNESCO Intergovernmental Oceanographic Commission). Mariners can hardly feel the passage of a tsunami while in deep sea. As such, a practical precaution for mariners during a tsunami is to take their vessels to the sea far away from the coast. In case a tsunami is expected, vessels should stay away from the shore or shallow waters. For vessels that remain moored in port, their moorings should be doubled and all personnel should leave the vessels and head for higher grounds.

The Hong Kong Observatory's forecasting office monitors the occurrence of strong earthquakes worldwide round-the-clock, and would issue a tsunami warning for Hong Kong if necessary. Fortunately, the maximum tsunami height recorded in Hong Kong on 11 March 2011 was only 0.2 m and there has never been a need for a tsunami warning in Hong Kong since the warning system was put in place in the 1960s. In any case, members of the public and vessel owners are advised to stay alert to strong earthquakes and tsunamis and take precautionary measures immediately during emergency. Earthquake and tsunami information in Hong Kong is available from:

http://www.hko.gov.hk/gts/quake/neqpress_e.htm

http://www.hko.gov.hk/gts/quake/tsunami_info_warn_e.htm