

Bulletin 419 - 06/05 - Abnormal Waves - Worldwide

The Australian Transport Safety Bureau (ATSB) recently released a report of an incident where a crewmember died of injuries sustained after being knocked against and over the windlass by an abnormal wave, which broke over the forecastle while the crew were securing the anchors.

The Mariners Handbook (NP 100, p.71) describes an ‘abnormal wave’ as likely ‘when waves are distorted by meeting shoal water, a strong opposing tidal stream or current, or another wave system’. This type of wave is different from normal sea waves in that they are abnormally steep-fronted, higher and occur in a small geographical area. Mariners should be aware of the existence of such waves when navigating in or near areas described in the Mariners Handbook.



This year has seen a number of incidents where vessels, including cruise ships, have been affected by one-off abnormal waves described as ‘freak waves’. Such waves have flooded the bridge as well as cabins on the ninth and tenth decks and left some vessels disabled. The UK Club finds that personal injury claim cases involving crew being hit by boarding waves are certainly not uncommon. This bulletin aims to highlight the need for crew to keep a watch on the sea and weather conditions, i.e. maintain a ‘weather eye’ when working in exposed areas of the ship.

The case highlighted here involved a small container vessel which departed from the port in heavy weather estimated at Beaufort Scale force seven or eight and recorded significant and maximum wave heights of 4.7m and 6.6m respectively. After disembarking the pilot the master brought the vessel onto a preferred course and speed to afford the best possible protection for the crew to allow for the securing of the anchors. With the weather off the port bow the vessel seemed quite steady with no undue roll or pitch. While three crewmembers were on the forecastle, the ship’s bow pitched into the trough of a large wave and a solid green sea shipped over the forecastle head.

The boatswain, who was fitting a cover over a spurling pipe, was protected by the windlass but the other two crewmembers were seriously injured. One of the men sustained severe lacerations to his legs but the crewmember that was thrown against and over the windlass was found unconscious; and, despite efforts to resuscitate him, was declared deceased by paramedics who boarded.

Source of information: Australian Transport Safety Bureau (ATSB)
Marine Safety Investigation Report No. 206
www.atsb.gov.au