

## SYNOPSIS

At 1410 UTC on 28 September 2000, the passenger cruise ship *Oriana* was on passage from New York to Southampton at a speed of about 19.5 knots when she was struck by a large wave amidships on her port side. As a result three cabin windows on deck 5, and three cabin windows on deck 6 were breached, injuring the occupants and causing extensive damage to the cabins and fittings. Storm covers had been fitted to the damaged windows on deck 5 but these were also breached.

The ship was experiencing storm force conditions and very high seas. Although the design of the windows met the strength requirements of BSMA 25, the UK standard for ships' windows, examination of the damaged windows and the remaining windows on the affected decks revealed the presence of numerous defects. The strength of the windows was significantly reduced by these defects, making them vulnerable to wave damage. Although the exact sources of the defects cannot be determined, they are likely to have originated either during manufacture or in the shipyard during, or following, installation. It is not known if the impact of the wave exceeded the designed strength of the windows. It is believed the storm covers were breached because their mounting arrangements failed.

This report makes recommendations to the manufacturer, shipbuilder, and classification society aimed at improving their quality control procedures. Recommendations to the MCA are aimed at providing clarification on the use and strength requirements for storm covers, and ensuring that standards for ship's window design remain applicable.