

## SYNOPSIS

On 1 February 2002, the Maltese, 6395gt cargo ship *Kodima* was on passage from Sweden to Libya carrying 10168 m<sup>3</sup> of timber in her holds and on deck. Between 1900 and 1950 her deck cargo shifted to port causing a list of 15° and, although course was altered towards Falmouth Bay, England, the list, compounded by the ship rolling in heavy seas, continued to increase. By 0450 the following morning it had reached 40°, and the ship's main engine and generators had become inoperable. With the ship stopped in the water about 20 miles from Falmouth, and drifting to the north-east, the master and crew were evacuated by helicopter. Attempts to secure a towline were unsuccessful, and *Kodima* eventually grounded on Tregantle Beach, Whitsands Bay at 1855.

At 0744 the following day, SOSREP informed the MAIB of the cargo shift and an investigation was started later that day. The investigation was conducted with the full co-operation of the Malta Maritime Authority, which concurs with the report's conclusions and recommendations.

*Kodima* was refloated on 16 February and towed to Falmouth. No significant oil pollution resulted from the grounding or from the subsequent salvage operations, but about 70% of the timber cargo was lost overboard and swept on to local beaches.

It is considered that several factors contributed to the cargo shifting, including:

- The wind was south-west force 8 to 9, or higher, and the seas were heavy.
- The vibration, deck movement, and water hitting the timber deck cargo, resulting from the ship pounding into the heavy seas, caused the timber deck cargo to settle.
- The wire lashings had not been checked for 32 hours and were not sufficiently tight.
- Large amounts of water probably found its way under the tarpaulin covering the timber deck cargo and lubricated the smooth plastic coverings.
- After 1920, the wind and sea were between 25° and 30° on the starboard bow, which caused the ship to roll more heavily.

It is also considered that following the onset of a list, several factors prevented *Kodima* from proceeding to Falmouth Bay. These include:

- The list and ship's movement caused fuel to be lost from the generator fuel oil service tanks.
- The list and ship's movement caused the fuel system to the generators to become air-locked.
- It was not possible to jettison the timber deck cargo.
- The main engine could not be re-started.

The recommendations made are aimed at encouraging compliance with, and improvements to, the relevant Code of Practice.