



## SYNOPSIS

At approximately 1811 on 29 June 2008, the ro-ro cargo ship *Moondance* was shifting from a lay-by berth to the ferry linkspan in Warrenpoint Harbour, Northern Ireland. At 1813 she grounded on the south-western bank of Carlingford Lough following an electrical blackout. There were no injuries, but the vessel suffered severe distortion of the port and starboard rudder stocks.

At 1808, just before *Moondance* left the quay, the port generator high fresh water temperature alarm sounded. The second engineer was working under pressure and unsupervised during the critical time of preparing to leave the berth. He was unable to determine the cause of the alarm and did not alert the chief engineer or master to the problem. Soon after leaving the quay, with the vessel proceeding astern, the starboard generator also alarmed, and at 1811 a total blackout occurred. The controllable pitch propellers (CPP) defaulted to the full astern position and *Moondance* continued her sternway until she grounded.

The chief engineer and his team arrived at the Engine Control Room (ECR), and the main engines were immediately shut down without approval from the bridge and without knowledge of the navigational situation. The situation in the ECR was chaotic. The chief engineer had difficulty establishing his authority because the Polish engineers discussed fault finding options, in Polish, without consulting him. The problems were exacerbated because there was no lighting; the emergency generator had failed to start automatically because it had been left in hand control. This was due to a long-standing defect that the chief engineer was unaware of. It was not until 15 minutes later that the emergency generator was started and the generators were cooled down sufficiently to enable them to be re-started.

Communications between the bridge and engine room were poor, which resulted in the main engines being started without approval from the bridge. However, they were shut down soon afterwards on the orders of the master, which were relayed, in person, by the chief officer. At 1945 the master ordered the starboard engine to be started and, with tug assistance, *Moondance* berthed alongside at 2022.

The investigation concluded that the generator high freshwater temperature was due to the isolating valve for the sea water cooling system, supplying the generators, being left shut or being only partially opened during the system reconfiguration for departure. Many of the routines on board were lax. The move from the lay-by berth to the linkspan was considered by senior staff on board *Moondance* to be a routine operation. Complacency led to insufficient manning levels on the bridge and in the engine room, which contributed to the accident.