SYNOPSIS

Trijnie, a 15.7m long workboat/tug, capsized at about 0744 (UTC+1) on 8 September 1998 while assisting the 7,686 gt tanker *Tillerman* to enter the lock for Milford Docks. The MAIB was notified shortly after the accident by Milford Haven Port Authority. Captain P Kavanagh carried out the investigation.

Tillerman was to move the short distance from No3 berth at the Texaco oil refinery across the Haven to the entrance lock for Milford Docks. Before letting go from the berth, the pilot decided Trijnie, one of the two tugs that were to assist in the move, should be the stern tug as she had the greater bollard pull. Trijnie was made fast by placing the eye of one of the ship's mooring lines on to her towing hook, while the other end was made fast to a set of bitts on Tillerman's poop deck. The ship let go from the berth and made her way to the approach channel for the lock. With an easterly setting tidal stream across the channel, the pilot warned Trijnie's coxswain that he would need her on the ship's port quarter as she entered the lock. To prepare for this the coxswain decided to make a peel-off turn from where Trijnie was running on the ship's starboard quarter. The tug altered course to starboard but after turning through between 60° and 90°, she would not turn any further. Instead, the tug began to heel to port and started to take water over the after deck. Despite trying to turn to port, the tug's heel increased and more water was taken on board. The coxswain left his helm position in the wheelhouse, went to the aft door where his crewman was standing and told him to abandon the tug. The coxswain then climbed over the starboard side and jumped into the water. The tug capsized very shortly afterwards.

The capsize was seen by a number of people and, having been alerted to the accident, many craft sailed to the scene. The coxswain was picked up very quickly and he told his rescuers a crewman had been with him on the tug. A surface search for the missing crewman was started. *Trijnie*, although held temporarily with her bows out of the water by a large harbour tug, eventually foundered. The body of the crewman was retrieved from *Trijnie* when she became partially exposed at low water.

The investigation found that *Trijnie* had been tasked as a one-off stand-in for another tug which usually carried out this type of operation. It found that the coxswain had not been trained to operate her as a stern tug with a ship making significant headway, and that *Trijnie* had never acted as such in Milford Haven. There was no gog rope in place on the tug, which was essential for a safe peel-off manoeuvre. The emergency trip wire to the towing hook was not connected. The operations manager who assigned the tug did not know what towing mode would be employed for *Trijnie*, and the pilot did not know that the coxswain had never carried out this type of operation before. The pilot could not see the tug from the bridge and assumed that she had been running with the ship stern-to-stern, from which position it would have been relatively easy for the tug to position herself on the ship's port quarter.

A number of recommendations have been made.