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“The sole objective of the investigation of an accident under the Merchant Shipping (Accident Reporting and Investigation) Regulations 2012 shall be the prevention of future accidents through the ascertainment of its causes and circumstances. It shall not be the purpose of an such investigation to determine liability nor, except so far as is necessary to achieve its objective, to apportion blame.”

**NOTE**

This report is not written with litigation in mind and, pursuant to Regulation 14(14) of the Merchant Shipping (Accident Reporting and Investigation) Regulations 2012, shall be inadmissible in any judicial proceedings whose purpose, or one of whose purposes is to attribute or apportion liability or blame.

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## Grounding of the general cargo vessel *Ruyter* Rathlin Island, UK 10 October 2017

### SUMMARY

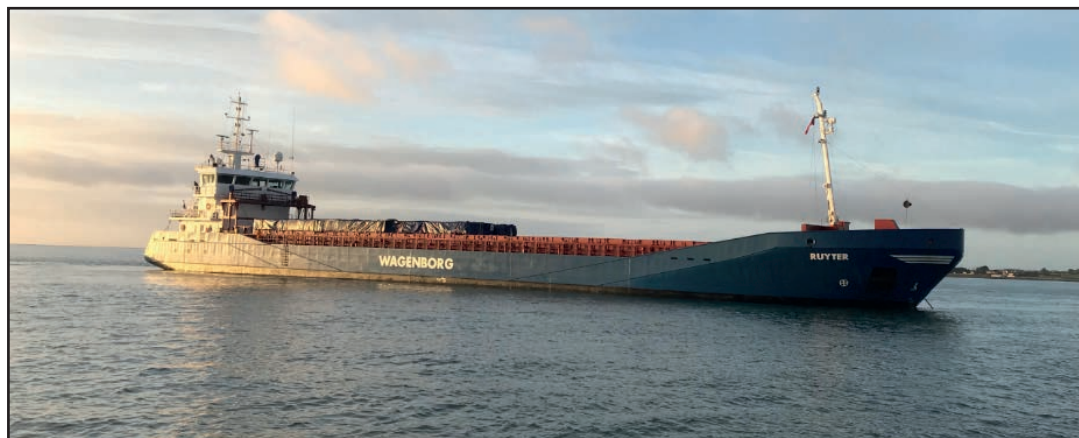
At about 2311 (UTC<sup>1</sup>+2) on 10 October 2017, the Netherlands registered general cargo vessel *Ruyter* ran aground on the north shore of Rathlin Island, UK. There were no resulting injuries or pollution.

*Ruyter's* bow shell plating and frames were damaged by the grounding, which resulted in flooding of the bow thruster space and forward voids. At 0022 the following day, the vessel was refloated without assistance and, after inspection at Carlingford Lough, proceeded to Belfast for temporary repairs.

The investigation found that *Ruyter* grounded because no action had been taken to correct a deviation from the ship's planned track. The master, who was the sole watchkeeper, had left the bridge, and the bridge navigational watch alarm system, which could have alerted the chief officer to the fact that the bridge was unmanned, had been switched off.

The master had been consuming alcohol before taking over the watch, contrary to the company's policy. The chief officer had previously been concerned over the master's regular excessive consumption of alcohol, but at the watch handover had been satisfied that the master was fit to take the watch.

The ship's manager, VD Innovation BV, has since taken action, including the introduction of random alcohol testing and the empowerment of its crews to alert any concerns they may have to the company.



*Ruyter*

<sup>1</sup> Universal Co-ordinated Time.

## FACTUAL INFORMATION

### Narrative

#### Events leading up to the grounding

*Ruyter* was on passage from Skagen, Denmark, to Warrenpoint, UK with a cargo of sawn timber.

At 1830 on 10 October 2017, the master arrived on the bridge to take over the watch from the chief officer to allow him to go below for a meal break. *Ruyter* was on an autopilot heading of 160° and proceeding at a speed over the ground (SOG) of 6.4 knots. Before arriving on the bridge, the master had been consuming alcohol in his cabin. The chief officer smelled alcohol on the master's breath but, following discussion with the master, was satisfied that the master was fit for watchkeeping duties. After handing over the watch to the master, the chief officer went below to eat and returned to the bridge approximately 20 minutes later. After handing the watch back to the chief officer, the master returned to his cabin, where he watched a film and consumed more alcohol.

Shortly before 2000, *Ruyter* was 5.5nm to the west of Orsay, Isle of Islay, and making a course over the ground (COG) of 162° at a SOG of 4.9 knots (**Figure 1**). The master returned to the bridge for his designated 2000 to 2400 watch. Again, the chief officer smelled alcohol on the master's breath but remained satisfied that the master was fit for watchkeeping duties. After briefing the master on the local traffic situation and handing over the watch to him, the chief officer went below, leaving the master alone on the bridge.

At 2002, the master adjusted the autopilot to steer 185° to avoid the north-west bound ship *Shannon Fisher*. At 2008, he again adjusted the autopilot to steer a south-easterly course.

At 2105, *Ruyter*'s master set the autopilot to steer 145°. The ship then maintained this heading until about 2311, when it ran aground on the north shore of Rathlin Island.

#### Events following the grounding

The chief officer, who had been woken up by the noise and vibration of the vessel grounding, was on his way to the bridge when he met the second officer, who had also been woken. They reached the bridge together to find it deserted. There were numerous alarms sounding, including the bilge alarm for the bow thruster space.

The second officer realised that *Ruyter* was aground. He set the telegraph to zero pitch and switched the steering to manual mode, while the chief officer silenced the alarms and switched on the deck lights.

The second officer sounded the general alarm and the remaining crew, including the master, mustered on the bridge.

At 2323, the chief officer notified the company's designated person ashore (DPA) of the situation, following which the DPA instructed the chief officer to take command of the ship.

Meanwhile, the second officer notified the coastguard, who tasked the Portrush All Weather Lifeboat (ALB) and the Rathlin Coastal Rescue Team.

Aware that the bilge alarm had sounded, the chief officer went forward to check the bow thruster space, while the chief engineer checked the fuel tanks and the bosun checked the ballast tanks and forward voids. The bow thruster space was found to be flooded. However, the water level was at the lowest platform and did not appear to be rising. The forward void spaces were also reported to have water ingress.

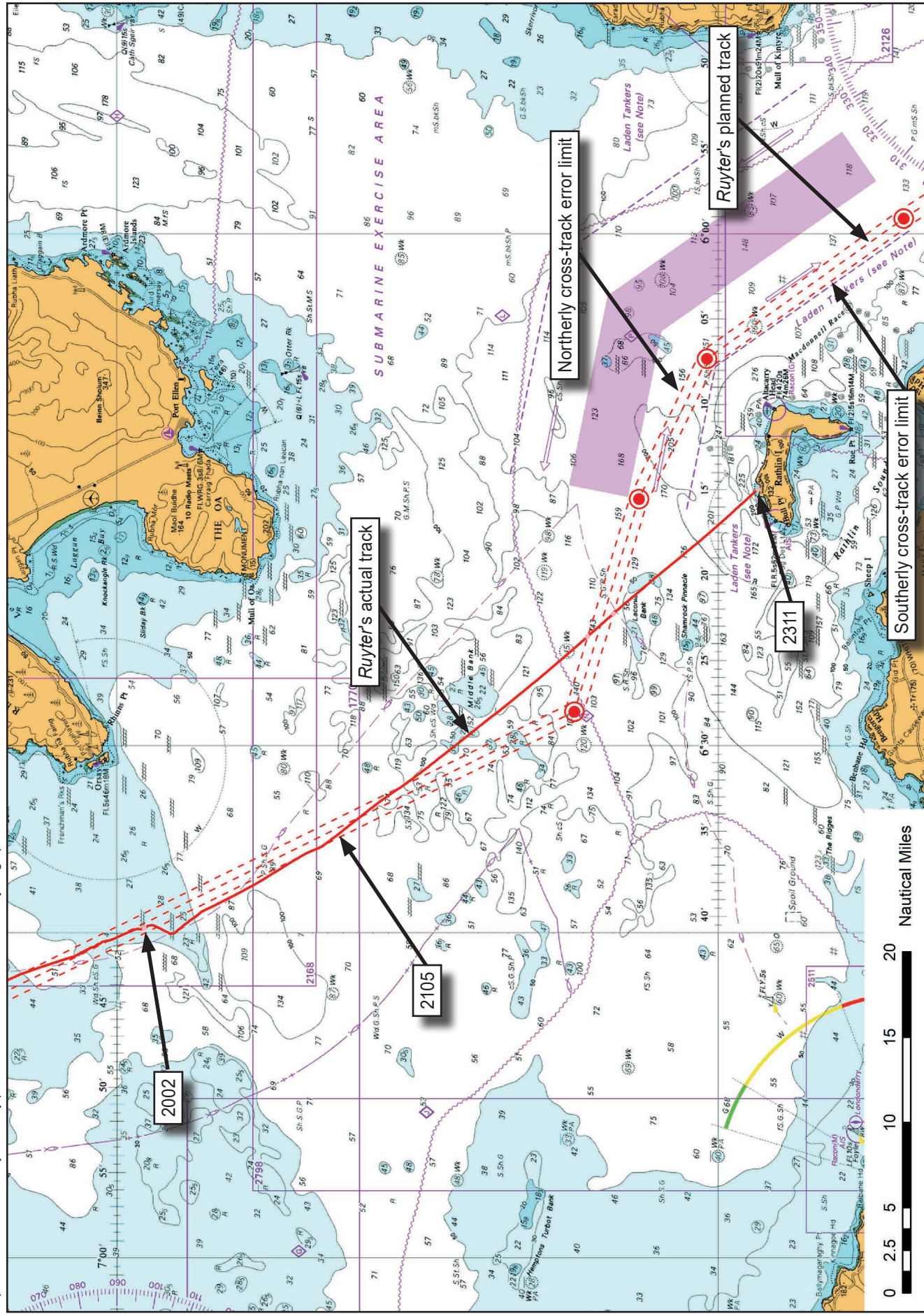


Figure 1: Ruyter's planned and actual tracks

With *Ruyter* aground, moving on rocks, and developing a starboard list, the DPA instructed the chief officer to attempt to refloat the ship. At 0022 on 11 October, the chief officer managed to manoeuvre *Ruyter* clear of the rocks using a combination of astern engine movements and rudder angles, and the assistance of a rising tide.

At 0049, the Portrush ALB arrived on scene and confirmed that there was no damage visible above the ship's waterline and no pollution. *Ruyter* proceeded to Carlingford Lough anchorage<sup>2</sup>, accompanied by the Portrush ALB until it was released by the coastguard at 0226. While on passage, *Ruyter* suffered a fire in the shaft generator that was quickly extinguished by the crew.

At 1200, *Ruyter* arrived at Carlingford Lough anchorage for initial inspection and, on 16 October, berthed at Warrenpoint.

## Damage

After discharging cargo at Warrenpoint, *Ruyter* proceeded to Belfast dry dock, where a full inspection revealed extensive structural damage throughout the forward third of the hull with 26 penetrations in three compartments. There was also damage to the shaft generator, as a result of the fire that occurred while on passage to Carlingford Lough, that was caused by misalignment of the shaft during or following the grounding

## Manning

*Ruyter* sailed with a crew of eight, which exceeded the minimum safe manning requirement of six. The master, chief officer and second officer each kept a bridge watch in a 4 hours on, 8 hours off watch system.

The master, a 59-year old Russian, held a Russian STCW<sup>3</sup> II/2 Master Unlimited Certificate of Competency (CoC), and had served as master for more than 20 years. This was his first appointment with VD Innovation BV, and he had joined *Ruyter* on 28 August 2017.

The chief officer, a 40-year old Ukrainian, held a Ukrainian STCW II/2 Chief Mate CoC. He had joined *Ruyter* on 1 August 2017.

## Management

*Ruyter* was managed by VD Innovation BV, whose International Safety Management (ISM) Code Document of Compliance (DoC) was issued on 20 March 2017 and was valid until 3 February 2020.

On 1 August 2017, *Ruyter* transferred from the registry of Antigua and Barbuda to that of The Netherlands. The ship's interim Safety Management Certificate (SMC) was issued on 14 August 2017 and was valid until 13 February 2018.

*Ruyter's* Safety Management System (SMS) instructions included the following:

*'The engineroom alarms are monitored from the bridge. In case of alarm, the officer on watch shall inform a relevant crewmember to attend the engineroom, at no time shall the bridge be left unattended.'*

*'Watchkeeping is basically done by 2 persons, refer to the watchkeeping schedule'*

*'At sea, the Bridge-Watch alarm should be switched on'*

---

<sup>2</sup> Carlingford Lough anchorage is the designated anchorage for Warrenpoint port.

<sup>3</sup> International Convention on Standards of Training, Certification and Watchkeeping for Seafarers 1978, as amended.

*'All alcohol consumption is prohibited during watchkeeping and within a four hour period prior to watchkeeping'*

*'The performance of duties should not be influenced by alcohol'. [sic]*

## **Alcohol consumption**

Approximately 2 weeks before the accident, the chief officer had informed the master that he was concerned about what he considered to be the master's regular excessive consumption of alcohol. The master had initially appeared to heed the chief officer's concern, but subsequently had started to drink heavily again. The SMS referred to the company arranging for alcohol testing of the crew. However, the investigation found no evidence that alcohol testing had ever been conducted on board. The chief officer had not reported his concern to the company.

## **Lookout**

*Ruyter's* watchkeeping schedule required a crew member, in addition to the officer in charge of the navigational watch, to act as lookout on the bridge between 2200 and 0600. However, this instruction was not routinely complied with, and the master had previously left the bridge unattended. A bridge navigational watch alarm system (BNWAS), which was configured to sound in both the master's and chief officer's cabins, was routinely switched off.

Marine Guidance Note (MGN) 137(M+F) – Look-out During Periods of Darkness and Restricted Visibility applies to UK ships and other ships operating in UK territorial waters. It strongly advises operators and masters not to operate with the officer in charge of the navigational watch acting as the sole lookout during periods of darkness. It also provides a reminder of the legal requirement for ships to maintain a proper lookout at all times.

STCW Section A-VIII/2 Paragraph 16 states that the officer in charge of the navigational watch may be the sole lookout in daylight provided that, on each such occasion:

- .1 the situation has been carefully assessed and it has been established without doubt that it is safe to do so;*
- .2 full account has been taken of all relevant factors, including, but not limited to:*
  - state of weather;*
  - visibility;*
  - traffic density;*
  - proximity of dangers to navigation; and*
  - the attention necessary when navigating in or near traffic separation schemes; and*
- .3 assistance is immediately available to be summoned to the bridge when any change in the situation so requires.'*

## ANALYSIS

### Alcohol consumption

The master's consumption of alcohol within 4 hours of taking his designated watch was contrary to the company's SMS requirement. The fact that he regularly consumed alcohol on board suggests that this might not have been his first infringement of the SMS instruction. *Ruyter* was the master's first command on a ship managed by VD Innovation BV. He had joined the vessel 6 weeks before the accident and, during that period, the company's oversight of his performance on board had been insufficient to identify and address this safety issue. With no previous incidents resulting from his consumption of alcohol, and with no enforcement of the company's alcohol policy, the master's acceptance of the risks associated with his alcohol consumption is likely to have been reinforced over time.

Although the chief officer considered the master's regular alcohol consumption to be excessive, and had successfully challenged him in this regard, when the master resumed his heavy drinking the chief officer had no means of validating his concerns. The SMS referred to the company arranging for alcohol testing, but there was no equipment on board for the chief officer to use at sea to validate his assessment. The SMS did not contain instructions on how an officer should tackle a master's inappropriate behaviour, and the chief officer did not feel sufficiently empowered to take decisive action and tell the company about the master's drinking. As the master continued to perform his duties having consumed alcohol, without consequence, it is likely that the chief officer came to accept this as the norm, with the result that he was content for the master to take over the watch at 2000.

### Disabling of barriers

After the master had left the bridge, *Ruyter* ran aground because:

- The bridge was unattended and there was no-one in a position to hear and act on the navigational alarms.
- The BNWAS was switched off, so the chief officer was not alerted that the bridge was unmanned.

STCW states that the officer in charge of the navigational watch may be the sole lookout by day, but does not explicitly require the addition of a lookout during the hours of darkness. A number of marine administrations very strongly recommend that a lookout is present during the hours of darkness but, in this instance, *Ruyter*'s watchkeeping schedule specifically required a lookout to close up between 2200 and 0600. Had a dedicated lookout been on *Ruyter*'s bridge during the evening of 10 October when the master left the bridge, it is likely he or she would have been able to act to prevent this accident occurring.

There are many benefits to having a dedicated lookout on the bridge, in addition to them fulfilling their primary, statutory function. The lookout's presence acts as a stimulus to keep the watchkeeper alert. The lookout can assist the watchkeeper during busy periods, can alert the watchkeeper to hazards should he or she become distracted, and can summon assistance should the watchkeeper become incapacitated. However, notwithstanding the obvious benefits of maintaining a dedicated lookout, *Ruyter*'s watchkeepers were quite content, as a matter of routine, to keep their watch alone.

The company was explicit in its requirement that the BNWAS should be switched on at all times when at sea, but on board *Ruyter* this instruction was ignored. It is possible that the need to constantly cancel BNWAS alerts was seen as an irritation, or it was disabled to prevent it alerting the crew on the occasions that the bridge was unmanned. The master was known to have left the bridge unmanned on a number of previous occasions, and it is possible that it was his decision that the BNWAS should be switched off. Whatever their reasons, *Ruyter*'s watchkeepers perceived little benefit in having an operational BNWAS, and so it was left switched off.

There were clear requirements for both a lookout to be posted at night, and for the BNWAS to be turned on. However, *Ruyter's* master saw no benefits to either. Whether the other watchkeeping officers did not feel empowered to challenge his decisions, or simply conformed to the onboard routine is unclear. However, as there were no negative consequences and no-one challenged that company instructions were being ignored, not posting a dedicated lookout at night and leaving the BNWAS switched off had become normalised behaviour on board. This had resulted in *Ruyter's* watchkeepers actively disabling the crucial alarms and defences that were intended as barriers to help prevent an accident.

### Refloating attempt

Once aground, *Ruyter* developed a starboard list. Given that the crew had ascertained the damage to the ship to the best of their ability, the rising tide, the rocky nature of the seabed, and the ship's movement and developing starboard list, it was entirely appropriate for the chief officer to make the attempt to refloat the ship. Although there is a possibility that some of the damage later identified might have been caused during the manoeuvre, had *Ruyter* remained on the rocks it would have undoubtedly suffered further, perhaps catastrophic, damage.

## CONCLUSIONS

- *Ruyter's* master left the bridge unattended.
- The extent of the company's oversight of the master's performance on board had been insufficient to identify and address his routine consumption of alcohol.
- Random alcohol testing did not form part of the company's alcohol policy and there was no formal process in place which the chief officer could have used to raise awareness of the master's inappropriate behaviour.
- The chief officer did not feel sufficiently certain of the master's impairment through alcohol consumption, or sufficiently empowered, to raise the matter with the company.
- By not posting a lookout at night and leaving the BNWAS switched off, *Ruyter's* watchkeepers had actively disabled the crucial alarms and defences that were intended as barriers to help prevent an accident. Further, as there had been no negative consequence or challenges to these decisions, this had become the normal routine on board.

## ACTION TAKEN

VD Innovation BV has since taken action, including the introduction of random alcohol testing and the empowerment of its crews to notify the company whenever there are concerns relating to the safe operation of their vessels.

## RECOMMENDATIONS

In view of the actions taken, no recommendations are made in this report.

## SHIP PARTICULARS

|                        |                  |
|------------------------|------------------|
| Vessel's name          | <i>Ruyter</i>    |
| Flag                   | The Netherlands  |
| Classification society | Bureau Veritas   |
| IMO number             | 9374674          |
| Type                   | General cargo    |
| Registered owner       | Ruyter BV        |
| Manager(s)             | VD Innovation BV |
| Year of build          | 2006             |
| Construction           | Steel            |
| Length overall         | 89.99m           |
| Gross tonnage          | 2528             |
| Minimum safe manning   | 6                |
| Authorised cargo       | General cargo    |

## VOYAGE PARTICULARS

|                   |                 |
|-------------------|-----------------|
| Port of departure | Skagen, Denmark |
| Port of arrival   | Warrenpoint, UK |
| Type of voyage    | International   |
| Cargo information | Sawn timber     |
| Manning           | 8               |

## MARINE CASUALTY INFORMATION

|                                     |   |
|-------------------------------------|---|
| Date and time                       | 10 October 2017, 2311   |
| Type of marine casualty or incident | Serious Marine Casualty   |
| Location of incident                | Rathlin Island, UK  |
| Place on board                      | Bow   |
| Injuries/fatalities                 | None  |
| Damage/environmental impact         | Extensive damage to forward third of the hull. No pollution.      |
| Ship operation                      | On passage  |
| Voyage segment                      | Mid-water   |
| External environment                | Wind: south-south-west, force 5-6 Swell: 1-2m<br>Visibility: good |
| Persons on board                    | 8   |