MAIB
MARINE ACCIDENT INVESTIGATION BRANCH

ACCIDENT REPORT

SERIOUS MARINE CASUALTY | REPORT NO 4/2020 | FEBRUARY 2020

Email: maib@dft.gov.uk
Tel: 023 8039 5500
Fax: 023 8023 2459

Grounding of the ro-ro freight ferry *Seatruck Performance* in Carlingford Lough, Northern Ireland 8 May 2019

SUMMARY

At 2243 on 8 May 2019, the Isle of Man registered roll-on/roll-off (ro-ro) freight ferry *Seatruck Performance* grounded while transiting the Greenore Channel in Carlingford Lough, Northern Ireland, soon after departing Warrenpoint for passage to Heysham, England. The ferry remained underway but quickly developed a 7° list to port. *Seatruck Performance* was manoeuvred into safe water while the crew checked for damage and the chief officer brought the ferry upright by transferring ballast. The ferry was able to return to Warrenpoint without assistance and there were no injuries to its 11 passengers and 22 crew, or any pollution. Subsequent survey and dry dock identified that a tank and a void space on the ferry's port side had been breached. The ferry was out of service for 3 weeks.

Image courtesy of Pat Davis and www.marinetraffic.com

Seatruck Performance

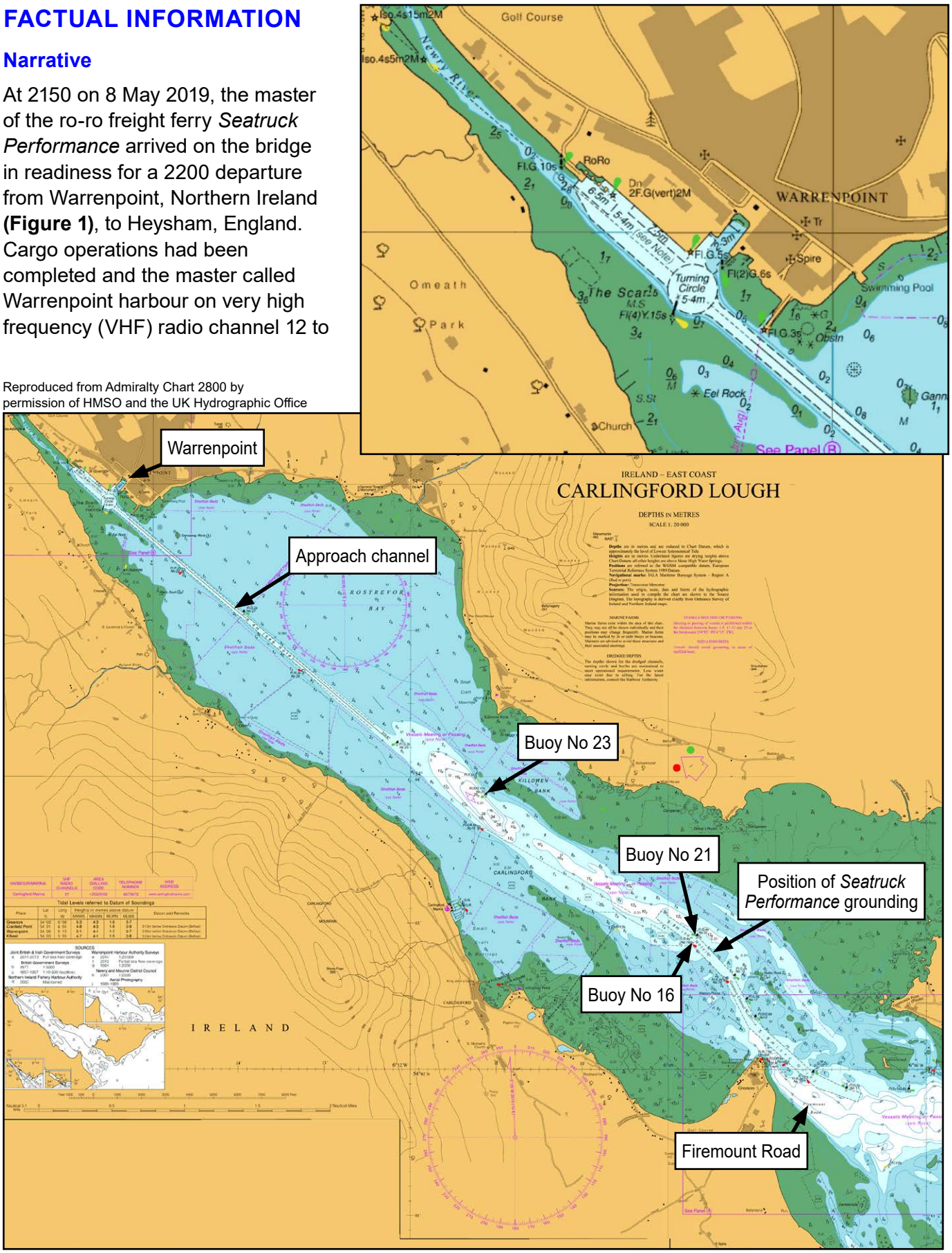
Seatruck Performance was turning into a narrow, buoyed channel when it grounded. The MAIB investigation identified that the ferry's outbound passage had not been sufficiently planned and, specifically, the effects of squat had not been adequately considered; the electronic navigation system was not being used effectively; and the newly appointed master, who was mainly navigating by eye, was not being effectively supported by the other officers on the bridge.

Seatruck Performance's owner and manager, Seatruck Ferries Ltd, has taken action to raise awareness of shallow water effects and improve onboard passage planning. The company has been recommended to take further measures to ensure the safe navigation of its vessels by optimising its use of electronic navigation systems and enhancing its Bridge Resource Management training.

FACTUAL INFORMATION

Narrative

At 2150 on 8 May 2019, the master of the ro-ro freight ferry *Seatruck Performance* arrived on the bridge in readiness for a 2200 departure from Warrenpoint, Northern Ireland **(Figure 1)**, to Heysham, England. Cargo operations had been completed and the master called Warrenpoint harbour on very high frequency (VHF) radio channel 12 to



Reproduced from Admiralty Chart 2800 by permission of HMSO and the UK Hydrographic Office

Figure 1: Carlingford Lough and Warrenpoint (**inset:** Warrenpoint Port)

advise, among other things, that the ferry's draught was 5.5m. He also requested permission for the ferry to sail. Warrenpoint Harbour approved the ferry's departure and advised that the height of tide, which was flooding, was 1.5m. The master opted to remain alongside for a further 5 minutes to make sure that the water depth in the Greenore Channel was sufficient for the ferry's passage.

At 2205, *Seatruck Performance* sailed from Warrenpoint. On the bridge **(Figure 2)** were the master, who had the con, accompanied by the chief officer, who was the officer of the watch (OOW). On clearing the harbour breakwater, the master changed the steering control from 'hand' to autopilot and released the crew from their mooring stations. The ferry was heading 130° towards the Greenore Channel **(Figure 3)** at between 8 and 10 knots[1]. The visibility was good, and the wind was north-easterly at about 15 knots.

At 2215, the third officer (3/O) arrived on the bridge and took over the duties of the OOW. The chief officer remained on the starboard side of the bridge but did not assist with the navigation. The 3/O noted the time on the paper chart each time the ferry passed a lateral buoy.

At 2233, the master reported to Warrenpoint Harbour by VHF radio that the ferry was passing No 23 buoy. He also adjusted the ferry's heading to 121° and increased its speed to 14.5 knots. The navigational watch was quiet and uneventful until, at 2241:22, the master selected hand-steering in preparation for the planned course alteration between the No 16 and No 21 lateral buoys **(Figure 3)**. He was standing by the helm on the bridge centreline and was navigating mainly by eye. The master also checked the ferry's position by glancing at the chart radar.

As *Seatruck Performance* neared No 16 and No 21 lateral buoys, the master noticed from the rate of turn indication on the

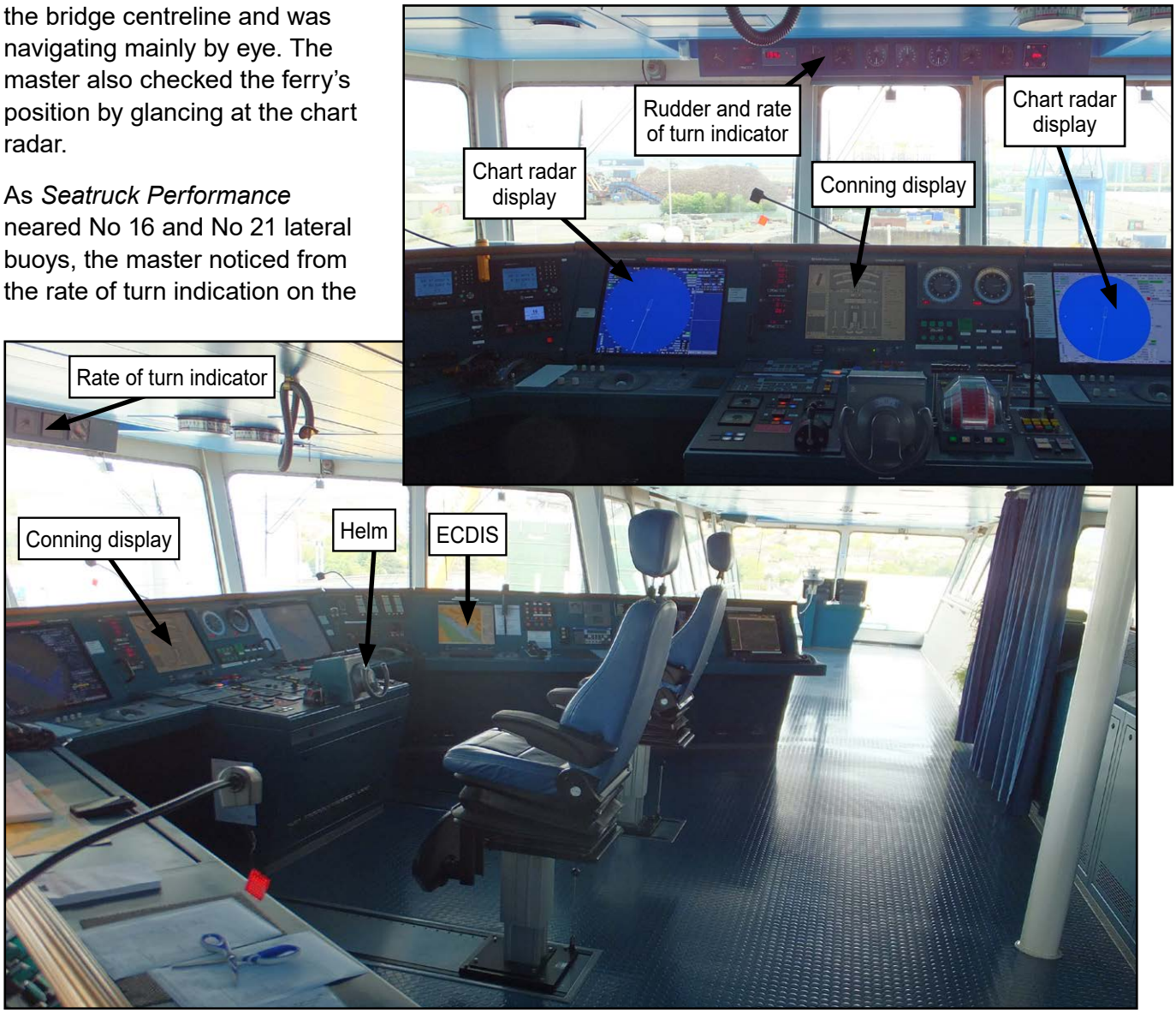


Figure 2: *Seatruck Performance* bridge (**inset:** Bridge looking forward)

[1] All speeds are 'over the ground' unless stated otherwise

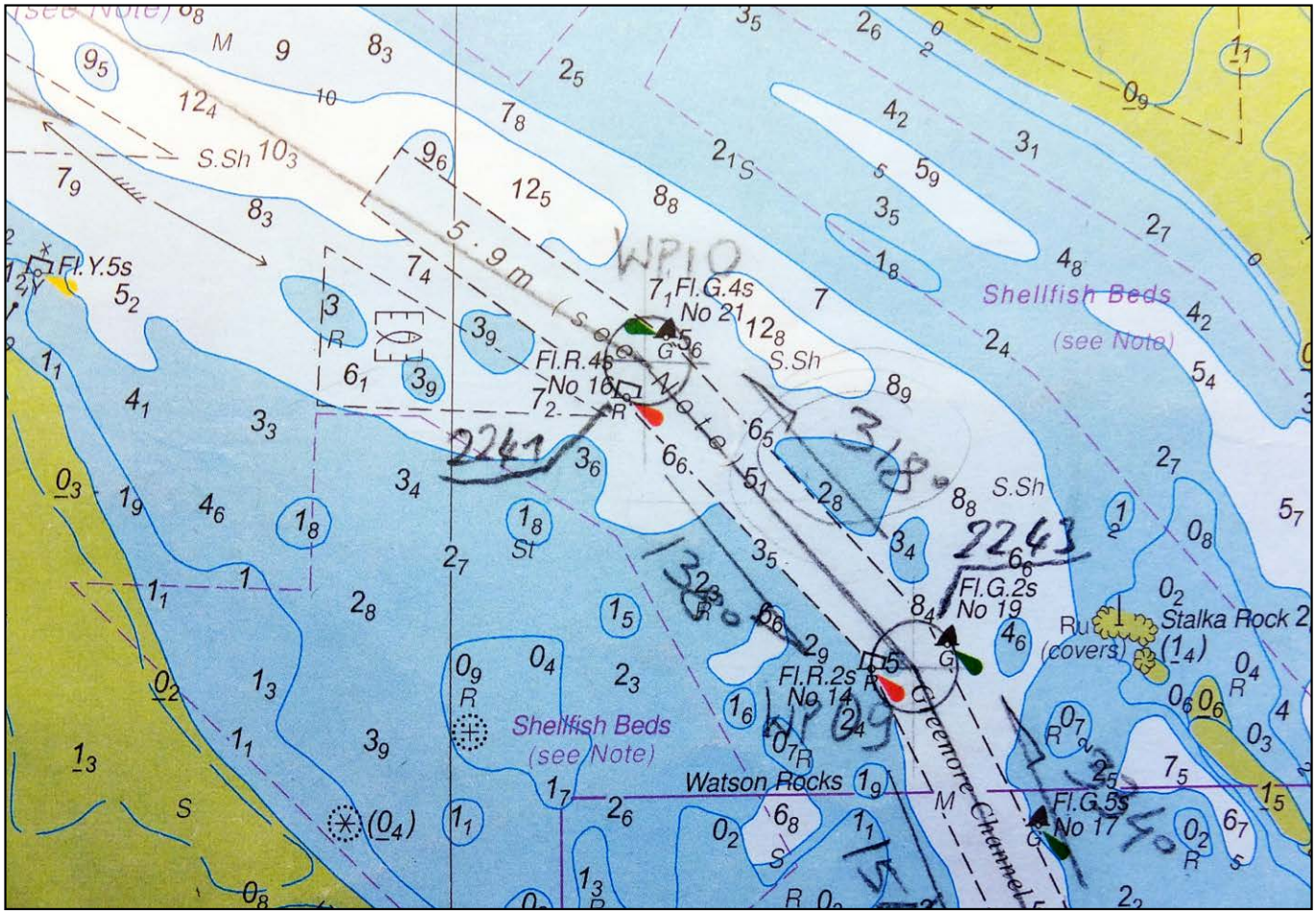


Figure 3: Planned track through the Greenore Channel

conning display that the ferry was turning very slowly to port, which was not expected. He applied 10° of starboard helm and the ferry started to turn to starboard, but the master soon assessed it was turning too quickly. Accordingly, he put the helm to midships. The 3/O then reported that the ferry was clear of No 21 buoy on the port side. At about the same time, the master realised that *Seatruck Performance* was further to the north than he intended. He applied starboard helm in increasing amounts to keep the ferry within the buoyed channel but, at 2242:58, a loud noise and a shuddering vibration lasting for 7 seconds was heard and felt throughout the vessel.

Post-collision events

The master, chief officer and 3/O immediately realised that *Seatruck Performance* had struck an underwater feature, but control of the steering and propulsion had not been affected. The master was able to keep the ferry inside the Greenore Channel as he reduced its speed.

Meanwhile, the chief officer set about establishing the ship's condition. The ferry had quickly developed a 7º port list and he identified from the ballast computer that 100t of seawater had entered the port heeling tank. The chief officer started to transfer ballast in order to return the ferry upright and used closed circuit television cameras to check the condition of the lower hold. He also told the 3/O to call the crew and to check for water in the void spaces on the port side. Water was soon found in No 4 void space. The engineers also checked the fuel tanks, which were found to be intact.

The chief officer informed the ferry's superintendent of the grounding and, at 2253, as *Seatruck Performance* passed No 11 buoy, the master reported the grounding to Warrenpoint harbour and Belfast Coastguard. By 2300, the ferry had exited the Greenore Channel and was drifting to the south-east of Greenore Point in Firemount Road **(Figure 1)**. The chief officer continued to work his way through the post-grounding checklist, but he did not alert the passengers or activate the general alarm as he felt the situation was under control.

Warrenpoint's harbourmaster sent a pilot boat to check for pollution, and when *Seatruck Performance* was almost upright and the risk of pollution was minimal, the harbourmaster authorised the ferry to return to Warrenpoint. As the master appeared to be shaken and nervous, the chief officer navigated *Seatruck Performance* back through the Greenore Channel. As the ferry neared Warrenpoint, the master took back the con and manoeuvred the ferry in the turning basin and alongside. A tug was available to assist but was not required.

Damage

An underwater inspection of *Seatruck Performance* on 9 May identified significant damage to the ferry's port side, including a 10m tear in way of No 4 void space and No 8 heeling tank, on the turn of the bilge **(Figure 4)**. Both spaces were flooded to the waterline.

Following a single voyage dispensation by *Seatruck Performance*'s classification society, the ferry proceeded to a dry dock in Belfast, where it arrived on 11 May. Broken pieces of granite were found in the damaged tanks. *Seatruck Performance* was repaired and returned to service 3 weeks later.

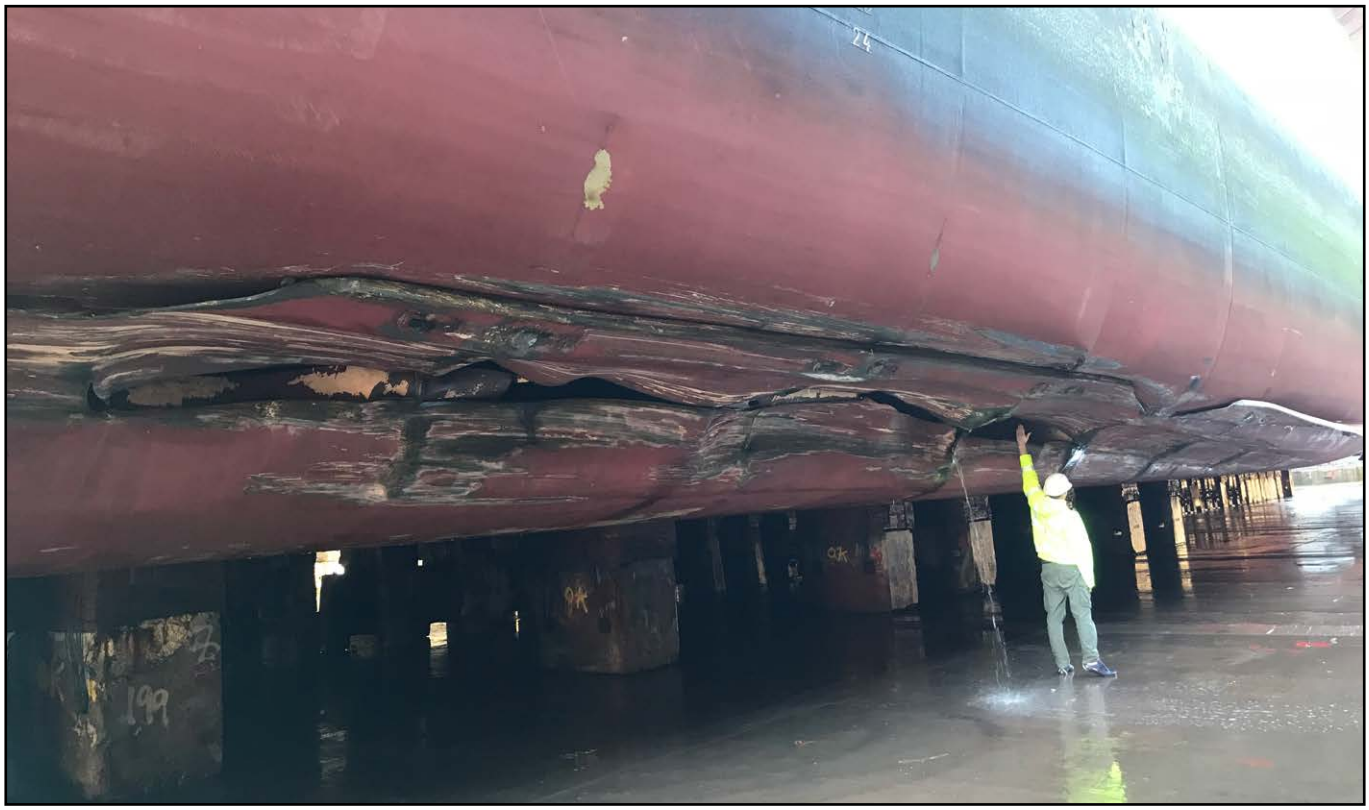


Figure 4: Damage to *Seatruck Performance* port side

Vessel and operation

Seatruck Performance was one of four 'FSG' class ferries (the others being *Seatruck Power*, *Seatruck Precision* and *Seatruck Progress*) operated by Seatruck Ferries Ltd (Seatruck) on freight ferry services between the UK and Ireland. Seatruck also operated three 'P' Class ferries (*Seatruck Pace*, *Seatruck Panorama* and *Clipper Point*) on Irish Sea routes.

Shortly after the delivery of the FSG ferries from build in 2012, Seatruck chartered *Seatruck Performance* and *Seatruck Precision* to Stena Line, which operated them between Heysham and Belfast, Northern Ireland. The FSG class ferries were 142m in length with a breadth of 25m, and had a capacity of 150 freight units over 2166 lane metres. Propulsion was provided by two controllable pitch propellers driven by two medium speed 8000kW MAN engines. Steering was via two balanced spade rudders, and the time taken to move from midships to hard over with two steering pumps operating was 7 seconds.

Seatruck Performance and *Seatruck Precision* returned from charter in September 2018 and replaced two of the 'P' class ferries on Seatruck's service between Heysham and Warrenpoint. The FSG ferries were similar in size and design to the 'P' class ferries, which had a capacity of 120 freight units over 1830 lane metres, but their underwater hull form differed. As a result, the estimated squat[2] at speeds over 12.5 knots with 2m under keel clearance (UKC) was 1.4m for the FSG ferries whereas the estimated squat for the 'P' class ferries at speeds over 14 knots was 0.2m.

The bridge team

Seatruck Performance's master was a 52-year-old Polish national who had worked for Seatruck for 22 years, including 7 years as a chief officer on the 'P' class ferries, and on board *Seatruck Performance* since the ferry had returned from charter in September 2018. He had held his STCW II/2 Certificate of Competency (CoC) since 2014 and had recently been promoted to master. The crossing from Heysham to Warrenpoint on 8 May 2019 was his first trip in command, following a 2-day handover. The master had held a Pilot Exemption Certificate (PEC) for Warrenpoint in the FSG class since 8 April 2019 and he also held PECs for Heysham and Dublin, which were obtained during his time on board the 'P' class ferries. He had last completed bridge resource management (BRM) training in 2016 and had completed type specific electronic display and information (ECDIS) familiarisation and generic training in 2012 and 2014 respectively.

The master's promotion from chief officer was based on positive appraisals, a letter of recommendation from a previous master, and an interview conducted by Seatruck senior managers with whom he was held in high regard. The master's last two appraisals included: '*Suitable for promotion – Yes for P class vessel. Further ship handling required for FSG vessel*'. The master accepted the promotion but negotiated a 6-month trial on the condition that he would be able to revert to working as a chief officer if he felt uncomfortable with the additional responsibilities of command, particularly in the winter months.

The master was excited at the prospect of taking command on 8 May and did not sleep well during the previous night. He also did not rest after sailing from Heysham at 1010 on 8 May, and gave the con to the chief officer on arrival in Warrenpoint at 1800 in order to swing the ferry in the turning basin and back up to the berth. The master did not rest while *Seatruck Performance* was moored in Warrenpoint.

The chief officer was a 35-year-old Polish national who had held an STCW II/2 CoC since 2018. He had worked for Seatruck for 9 years, the last six of which had been as chief officer, and he was confident and well-liked by colleagues. The chief officer had last completed BRM training in 2014 and had also completed both ECDIS generic and type specific training courses. During departures, the chief officer usually left the bridge after being relieved as OOW, but on leaving Warrenpoint on 8 May he had sensed that the master had been nervous during the arrival, and remained on the bridge to support him during the passage through the Greenore Channel.

The 3/O was a 25-year-old Polish national and had been working for Seatruck for 1 year. He was nearing the end of his third contract as 3/O after being promoted from able seaman. The 3/O completed ECDIS generic and BRM training in 2016 and 2018 respectively. He completed ECDIS type specific familiarisation training on 6 May 2019.

Navigation

Seatruck Performance was fitted with a modern cockpit style bridge **(Figure 2)** with a fully integrated Wärtsilä SAM Electronics 1100 series navigation system. The system included an ECDIS, a chart radar (radar with electronic navigational chart underlay) and a track pilot with 'hand', 'autopilot' (heading and course modes) and 'track follow' options.

The primary means of navigation was paper charts. The voyage plans drawn on the paper charts for entry to and departure from Warrenpoint **(Figure 3)** were used routinely without amendment, and were

[2] Squat is a hydrodynamic phenomenon causing a ship on passage at speed through shallow water to be closer to the seabed than would otherwise be expected.

also input to and shown on the ECDIS and the chart radar. The ECDIS was viewed as a navigational aid; the safety depth was set at 6.7m and the safety contour at 7m, but the look-ahead and the cross track distance (XTD) were not used. ECDIS tools, such as the 'predictor', were also not utilised, and the system was configured to mute audible alerts.

The practice adopted by the master for passage through the Greenore Channel was to navigate mainly by eye using the lateral buoys for reference, but he also checked the position on the chart radar. For the alteration from 121º to 138º between the No 16 and No 21 buoys, the visual cue to start the turn usually used by the master was the buoys starting to disappear from his peripheral vision while looking directly ahead. The master expected the OOW to monitor the buoys as they passed and to report their distance. In common with some other Seatruck masters the main consideration for speed through the Greenore Channel was the presence of vessels alongside at Greenore.

In pilotage waters in clear visibility *Seatruck Performance*'s onboard procedures required the master, an OOW and a rating lookout to be on the bridge. With respect to minimum UKC, the procedures also stated:

> *'The Master should consider that 0.50 metres or 10% of the vessel's draught, whichever is the greater, should be an acceptable under keel clearance. If a calculated clearance is less than this then permission to proceed should be obtained from the Marine Manager or their accredited deputy at the passage planning stage.*
>
> *In all cases the Master should be aware of the effects of:*
>
> - *squat (including the effect of the channel width in such cases as the channel width is less than the width of influence of the vessel)*
> - *sea conditions (including swells),*
>
> *either of which may have adverse effects on the handling characteristics of the vessel.*
>
> *The Master is to be aware of the consequent need to reduce speed in order to mitigate these effects.'*

To assist compliance with these requirements, one of *Seatruck Performance*'s previous masters had produced a ready reckoner or crib sheet. This advised that, when leaving Warrenpoint on a flooding tide with a draught of 5.5m, a minimum height of tide of 1.3m on the harbour gauge was required to allow a minimum UKC of 0.7m in the Greenore Channel. The ready reckoner did not allow for the potential decrease in UKC due to squat.

Greenore Channel

The Greenore Channel **(Figure 3)** was dredged to a depth of 5.9m and varied in width from 80m to 120m. It was marked by lateral buoys, which were lit, and no reports had been received to indicate they were out of their charted positions. The distance between No 16 and No 21 buoys was 120m. Passing in the channel was not permitted and there were no speed restrictions.

The channel had last been surveyed in March 2019 and a Notice to Mariners extant at the time of *Seatruck Performance*'s grounding stated:

> *'recent Hydrographic Surveys of the Greenore Channel have revealed that there is a small mound in the centre of the channel at the inshore end of the Greenore Channel with a minimum depth of 4.9m'.*

The reduced depths were located in the section of the channel between No 16 and No 14 buoys.

The Competent Harbour Authority and Local Lighthouse Authority for Carlingford Lough, including the Greenore Channel, was the Carlingford Lough Commissioners (CLC). The CLC had not implemented a Marine Safety Management System for the Lough. It also had not completed navigational risk assessments and was not compliant with the UK Port Marine Safety Code. However, some of CLC's responsibilities, such as the issue of Notices to Mariners (NTM) and the development of port passage plans, were met by the Warrenpoint Harbour Authority, which had amended its harbour act to allow it to maintain the Greenore Channel. Warrenpoint's harbourmaster was also a CLC commissioner.

Pilotage was compulsory in the Lough and Warrenpoint. Pilots and tugs were provided by Carlingford Lough Pilots, which were licensed by the CLC. To qualify for his PEC, *Seatruck Performance*'s master had completed ten entries and departures to/from Warrenpoint that had been logged and one inbound check-ride which was assessed by an authorised pilot. He also passed an oral examination administered by the Warrenpoint and Carlingford Loch harbourmasters.

ANALYSIS

The grounding

The passage plan required *Seatruck Performance* to alter from 121º to 138º when passing between No 16 and No 21 lateral buoys **(Figure 3)**. The plan kept the ferry in the centre of the dredged channel as it headed to the next pair of lateral buoys. Although the planned alteration was only 17º, the width of the dredged channel between submerged granite banks to the east of No 16 and No 21 lateral buoys was only 120m, which afforded little margin for error.

Reconstruction of *Seatruck Performance*'s track **(Figure 5)**, which is based on voyage data recorder information, showed that when hand-steering was selected at 2241:22, the ferry was 20m to the south of the planned 121º track and was heading 119° at 14.1 knots. Over the next 30 seconds, the ferry's heading turned very slowly to port to a heading of 117º, until checked by the master's use of starboard helm. That *Seatruck Performance*'s speed also decreased to 12.8 knots over the same period and the depth of water under the keel reduced from 7.6m to 4.7m, indicates that the ferry experienced 'bow-cushion'[3] and other shallow water effects[4] as it approached and passed the 3.9m shoal patch on the southern edge of the dredged channel.

Having arrested *Seatruck Performance*'s slow turn to port with starboard helm, the master maintained the ferry's heading at about 121° between 2241:51 and 2242:23 by using between 5° of port and 5° starboard helm. During this period, the ferry passed between the No 16 and No 21 lateral buoys, beyond the intended course alteration, and was heading towards the north side of the dredged channel. Although the master then used increasing amounts of starboard helm to head between No 14 and No 19 lateral buoys, the turn was started too late. Consequently, *Seatruck Performance*'s port side struck the submerged granite bank on the northern side of the dredged channel, which was indicated by a 2.8m spot depth.

Decision-making

The master was familiar with the Greenore Channel, having navigated *Seatruck Performance* out of Warrenpoint on at least 10 occasions while working towards his PEC. On this occasion, as on others, he was navigating mainly by eye. The visibility was good, and the buoys were lit. However, unlike the previous departures, the master had ultimate responsibility, and his apparent hesitancy to continue the turn to starboard in the half-minute between 2241:51 and 2242:23 was possibly influenced by the pressure of the situation. The master's insistence on taking command for a 'trial period' and the delegation of shiphandling to the chief officer during the ferry's arrival in Warrenpoint suggests he was

[3] 'Bow-cushion effect' refers to the tendency of a ship's bow to swing away from a nearby bank when operating in a restricted waterway.

[4] When operating in shallow water, vessels can experience several effects due to interaction with the seabed. The effects include an increase in squat, decrease in speed and sluggish manoeuvring.

Key	Time	Heading	Speed (kts)	Rudder (S+P-)	RoT (°/min) (S+P-)	Depth (m)
1	2240:48	120°	14.5	+ 2°	-2°	7.6
2	2241:22	119°	14.1	0°	-2°	5.1
3	2241:31	118°	13.6	+10°	-8°	4.0
4	2241:51	117°	12.8	+15°	-1°	4.7
From 2241:51 and 2242:23 the rudder movements varied between +5° and -5° the ship's heading remained at 121°						
5	2242:23	122°	13.1	+12°	+6°	4.9
6	2242:37	126°	12.6	+20°	+17°	3.9
7	2242:58	141°	11.3	0°	+51°	2.6
Planned track ——		Actual track ——		Starboard +		Port -

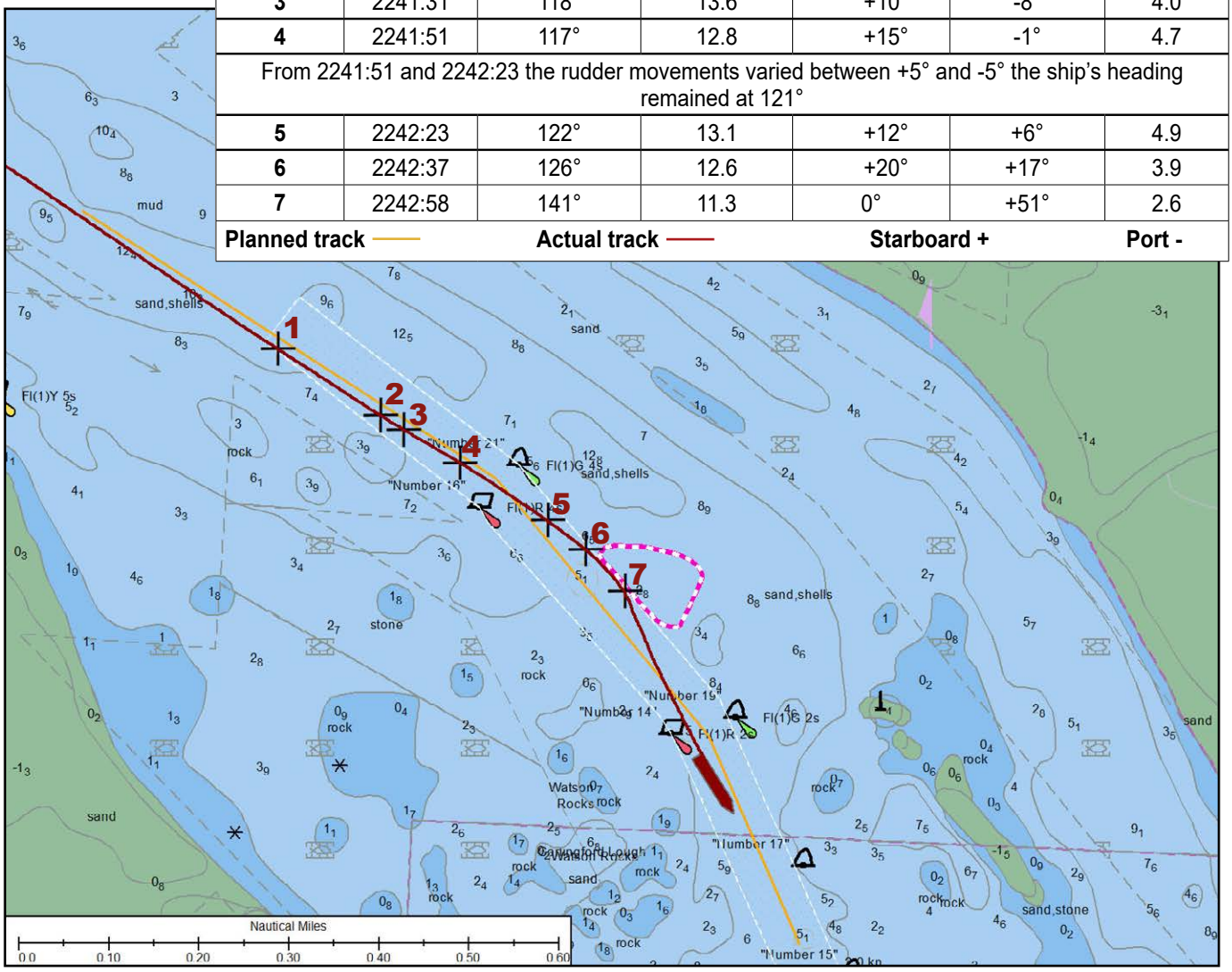


Figure 5: Reconstruction of *Seatruck Performance*'s planned and actual track

nervous and/or not confident. Such nervousness and/or a lack in confidence probably led to a self-imposed pressure, compounded by the fact that it was the master's first departure from Warrenpoint in command, it was dark, he had not slept well the previous night and he had not rested during the day. The unexpected heading movement to port shortly after selecting hand-steering, and the presence of the confident chief officer on the bridge, potentially unsettled the master even further, causing him to falter under pressure, a behaviour where a person performs below expectation given their skill level, possibly due to overthinking a task rather than it happening automatically.

Resource management

Despite *Seatruck Performance*'s master, chief officer and 3/O having completed BRM training, other than the 3/O calling that No 21 buoy was clear, and marking the time the ferry passed the buoys on the paper chart, the master was not supported during the passage. Although the chief officer remained on the bridge with good intent, he remained a bystander.

As *Seatruck Performance* approached the critical course alteration between No 16 and No 21 buoys, the master's preference to steer the ferry himself inevitably reduced his ability to effectively monitor either the chart radar or ECDIS displays due to their distance and oblique angle when viewed from the helm position **(Figure 2)**. Although steering by hand was a common practice among other Seatruck masters

due to the control it afforded, it also reduced awareness of the wider situation. Consequently, on this occasion, without the active position monitoring and prompting of the chief officer or the 3/O, the master became a single point of failure. The information provided by the 3/O regarding the position of No 21 buoy was useful, but the marking of the times of passing each buoy was reactive and added no value.

Conduct of navigation

The width of the Greenore Channel between No 16 and No 21 buoys called for precise navigation, particularly in view of the granite banks either side, which potentially were a danger even at high water **(Figure 3)**. However, the accuracy of the navigation on board *Seatruck Performance* was largely dependent on the master's visual appreciation of the buoys, which proved unreliable on this occasion. The ferry was to the south of the planned track as it approached the buoyed channel, and the turn to starboard was initiated too late. Navigation by eye is common practice in such restricted waters, but it is usually accompanied by other means of checking accuracy. In this case, close scrutiny of the ferry's position on the ECDIS or chart radar, by the 3/O or chief officer, and the use of ECDIS tools such as the 'predictor', 'look-ahead', XTD, and wheel-over positions would have afforded the opportunity to provide real time and accurate information to support and challenge the master's visual assessment.

Seatruck Performance's master, chief officer and 3/O had all completed the training required to use ECDIS as a primary means of navigation, but for the outbound passage from Warrenpoint many of the system's safety features were not utilized. A recent safety study by the MAIB and the Danish Maritime Accident Investigation Board (in draft) has also found that when paper charts are declared as the primary means of navigation it is not uncommon for watchkeepers to use ECDIS as the principal means of navigation but not to enable all the system's safety features. Further, as in this case, while position plotting on the paper chart maintained a navigational record it was not used as a basis for projecting the vessel's future movements. While the approach to navigation adopted by *Seatruck Performance*'s bridge team cannot therefore be seen as anomalous when ECDIS is fitted but the primary means of navigation is declared as paper charts, the night outbound passage through the Greenore Channel required more precise navigational practices.

UKC calculation

Seatruck Performance experienced 'bow-cushion' and shallow water effects as the ferry approached the buoyed channel. Not only did this induce a very slow turn to port, but it possibly also adversely affected the ferry's directional stability, which probably contributed to a degree of uncertainty in the master's thoughts. It is evident that the possibility of encountering these effects was not taken into account when deciding on speed or calculating UKC.

The ready reckoner used on board *Seatruck Performance* to indicate when it was safe to sail from Warrenpoint was based on static draught alone. Consequently, although the ferry's static draught was 5.5m on 8 May, at 14.5 knots its dynamic draught was 6.9m (5.5m draught plus 1.4m squat). The minimum depth of water in the Greenore Channel was 7m (4.9m plus 2.1m predicted height of tide at Greenore). Therefore, the resultant UKC was only 0.1m, which was significantly below the minimum required by the onboard procedures, and was potentially hazardous.

The reduced depths in the Greenore Channel that were promulgated by the NTM had been taken into account in the ready reckoner, which indicates that it had been reviewed from time to time. The omission of squat from the onboard guide was possibly a legacy from the operation of the 'P' class ferries, where squat was minimal, resulting in the increased squat of the generally otherwise similar 'FSG' class, being overlooked.

Emergency Response

The actions taken by *Seatruck Performance*'s crew were positive and timely and enabled the ferry to return to Warrenpoint without assistance and in an almost upright condition. However, although the situation seemed under control, the master and chief officer were not fully aware of the extent of the

underwater damage. Therefore, sounding the general alarm and mustering the passengers would have been a prudent step to take as this would have avoided difficulty in the event of a sudden and unexpected change in the ferry's stability.

CONCLUSIONS

- The ferry grounded as a result of its heading being altered later than intended after entering the western end of the Greenore Channel.
- 'Bow-cushion' and other shallow water effects were experienced as the ferry approached the intended alteration, which affected both heading and speed, due to the under keel clearance and the proximity of a charted bank on the south side of the channel.
- The potential for squat was not considered when calculating the ferry's under keel clearance before departure, or when considering its speed.
- The late initiation of the turn resulted from the newly promoted master's nervousness and/or lack of confidence, insufficient support from the bridge team, and the navigational practices used.
- The master was steering by hand, which reduced his ability to maintain an overview of the situation, and a lack of support from the bridge team made him a single point of failure.
- The navigational practices being used by *Seatruck Performance*'s bridge team did not fully incorporate the electronic aids available and were insufficient to assure the vessel's safe outbound passage, at night, through the Greenore Channel.
- The crew's response to the grounding was positive, but the passengers were not alerted.

ACTION TAKEN

Actions taken by other organisations

Seatruck Ferries Ltd has:

- Advised its masters of the potential for 'bank' effect when navigating in the Greenore Channel and to treat the dashed black line delineating the channel on the paper chart as a physical barrier.
- Revised its onboard procedures to highlight the potential for squat and interaction in pilotage waters when determining UKC and speed during passage planning and execution.

RECOMMENDATIONS

Seatruck Ferries Ltd is recommended to:

2020/108 Take further measures to enhance the safe navigation of its vessels by optimising its use of electronic navigation systems to provide real time positional information, and enhancing its Bridge Resource Management training.

SHIP PARTICULARS	
Vessel's name	*Seatruck Performance*
Flag	Isle of Man
Classification society	Det Norske Veritas Germanischer Lloyd (DNVGL)
IMO number	9506227
Type	Ro-ro freight carrier
Registered owner	Seatruck Ferries Limited
Manager(s)	Seatruck Ferries Limited
Year of build	2012
Construction	Steel
Length overall	142m
Gross tonnage	19722
Minimum safe manning	12
Authorised cargo	Freight

VOYAGE PARTICULARS	
Port of departure	Warrenpoint, Northern Ireland
Port of arrival	Warrenpoint, Northern Ireland
Type of voyage	International
Manning	22
Cargo information	Loaded

MARINE CASUALTY INFORMATION	
Date and time	8 May 2019, 2243 (UTC+1)
Type of marine casualty or incident	Serious Marine Casualty
Location of incident	Greenore Channel, Carlingford Lough, Northern Ireland
Place on board	Ship
Injuries/fatalities	None
Damage/environmental impact	10m tear in port side shell plating below the waterline in way of No 8 heeling tank and No 4 void space. No pollution
Ship operation	On passage
Voyage segment	Pilotage area
External & internal environment	Good visibility, moderate north-easterly wind. The predicted height of tide at 2245 (UTC+1) at Greenore was 2.1m
Persons on board	11 passengers and 22 crew