Neutral Citation Number: [2019] EWHC 481 (Admlty)

Case No: AD-2016-000111

IN THE HIGH COURT OF JUSTICE
BUSINESS AND PROPERTY COURTS OF ENGLAND AND WALES
QUEEN'S BENCH DIVISION
ADMIRALTY COURT

Royal Courts of Justice
Rolls Building, 7 Rolls Buildings
Fetter Lane, London EC4A 1NL

Date: 08/03/2019

Before :

MR. JUSTICE TEARE

- -

Between :

(1) ALIZE 1954 **(2) CMA CGM SA**	**Claimants**
- and -	
ALLIANZ ELEMENTAR VERSICHERUNGS AG AND OTHERS	**Defendants**

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- -

Timothy Hill QC and Alex Carless (instructed by **Reed Smith**) for the **Claimants**
John Russell QC (instructed by **Clyde and Co.**) for the **Defendants**

Hearing dates: 28-31 January, 1 and 6 February 2019 with further written submissions exchanged until 22 February 2019

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Approved Judgment

I direct that pursuant to CPR PD 39A para 6.1 no official shorthand note shall be taken of this Judgment and that copies of this version as handed down may be treated as authentic.

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MR JUSTICE TEARE

Mr. Justice Teare :

1. On 17 May 2011 the CMA CGM LIBRA, a modern (and laden) container vessel, grounded whilst leaving the port of Xiamen in China. The cost of her salvage was some US $9.5 million and the total claim in General Average by her Owners against Cargo Interests was some US $13 million. 92% of the Cargo Interests paid their contribution to GA but some 8% have refused to do so. The sum payable by those interests is approximately US $800,000 and it is claimed in these proceedings. The claim has given rise to questions of unseaworthiness, due diligence, negligent navigation and causation.

2. In broad terms the Owners say that the cause of the casualty was an uncharted shoal on which the vessel grounded. The Cargo Interests say that the cause of the casualty was the unseaworthiness of the vessel which led to the master's negligent navigation of the vessel. In particular it was said that the vessel was unseaworthy by reason of the fact that she had an inadequate passage plan, that that inadequacy was a cause of the casualty and that due diligence was not exercised to make the vessel seaworthy. The casualty was thus caused by the Owners' actionable fault (a breach of Article III rule 1 of the Hague Rules) and so the Cargo Interests are not liable to contribute in GA pursuant to the York Antwerp Rules.

3. Established principles with regard to seaworthiness and the duty of due diligence pursuant to Article III r.1 of the Hague Rules fall to be applied in the context of two (relatively) recent developments designed to improve the safety of navigation. The first is the recognition by IMO in 1999 that voyage or passage planning should apply to all ships engaged on international voyages. The practice of passage planning was therefore well-established by 2011. The second is the use by ships of electronic charts displayed on an ECDIS, that is, an Electronic Chart Display and Information System. It is right to observe, however, that in 2011 when this casualty occurred, the shipping industry was in the course of changing from paper to electronic charts. In 2011 a ship could satisfy the charts requirement of SOLAS by carrying either paper charts (SNCs or Standard Nautical Charts), as this vessel did, or by electronic charts (ENCs or Electronic Navigational Charts). As from July 2016 ships were required to use ENCs. This casualty therefore occurred at a time of transition in the shipping industry from paper to electronic charts.

The witnesses

4. The master of the vessel, Captain Culusi, gave oral evidence. He did so some 7-8 years after the events in question. It is to be expected that he will have given considerable thought to the causes of the casualty over the intervening years. It is also to be expected that he will have carefully considered the criticisms made of his navigation of the vessel. In those circumstances it is likely that it is difficult for him now to disentangle in his mind his actual recollection of the events leading up to the casualty with his reconstruction, based in particular upon the Voyage Data Recorder (VDR), of what happened. Of course in circumstances where the vessel carried a VDR there can be little if any dispute as to the course and speed of the vessel and of her likely track to the grounding position. There are, however, disputes as to matters not recorded by the VDR, for example, whether the master was aware of the contents of a particular Notice to Mariners during the navigation and as to the relative reliance placed by the master on the paper chart, the electronic chart and the radar. With

regard to these matters his evidence in 2019, save where it is consistent with the probabilities or, perhaps, with contemporaneous reports made by him in 2011, is unlikely to be reliable, not because he was untruthful in his evidence, but because his evidence on such matters is likely to be the product, not of recollection but of his reconstruction of the events, the truth of which he has convinced himself over the intervening years.

5. Captain Gansinhounde, a DPA ("Designated Person Ashore") employed by the Owners (though not in relation to this particular vessel) also gave oral evidence. He did so because the vessel's DPA at the time no longer works for the Owners and (until recently) no statement was available from him. It was apparent from Captain Gansinhounde's cross-examination that listening to the cross-examination of the Master had caused him to revise certain of the opinions expressed by him in his written statement. Thus, whilst in his witness statement he had said that the preparation of the vessel's passage plan had been in accordance with the relevant procedures and nautical instructions, in his oral evidence he accepted that the master had not followed proper procedures. He thus appeared to be frank and candid with the court.

6. The court was assisted by the expert opinion of two master mariners called by the parties, Captain Whyte for the Owners and Captain Hart for the Cargo Interests. Both studied the circumstances leading up to the casualty in immense and well researched detail. Each was accused by counsel of having done his best to assist the side which instructed him. I accept that both experts sought to give the court their honest opinion. However, there were limitations to the benefit which the court could derive from their opinions. Whilst Captain Whyte was well qualified and had been at sea until 2012 (serving with the Royal Fleet Auxiliary) with experience of ENCs, he had difficulty, it seemed to me, in standing back from the detail of the case and assessing the matter from the point of view of the ordinarily prudent mariner. This may have been because of his very detailed research into certain aspects of the case. It may also have been because in his first report he made no mention of a Notice to Mariners which he accepted in his oral evidence was critical and paramount. Having formed his views as to the conduct of the master without regard to that Notice to Mariners he may have found it difficult to reconsider his views as to how matters might have appeared to the prudent mariner in the light of that Notice. In addition, his answers tended to be lengthy so that it was sometimes difficult to discern his answer to the question put to him. Captain Hart had the merit of answering questions directly and with reasons concisely expressed. However, in the context of the present case he was handicapped by not having sailed as master with the benefit of electronic charts. He had been at sea until 1987 serving on merchant vessels deep sea and offshore. Thus his experience was not as recent as Captain Whyte's and not as relevant (with regard to the use of ENCs). Nevertheless, the opinions of both experts on the questions of passage planning and navigation were both interesting and helpful to the court.[1]

[1] The Admiralty Court has much experience of dealing with issues of passage planning and navigation in collision cases, assisted by advice from nautical assessors from Trinity House. There does not seem to be any reason why the court could not deal with such issues in the same way when they arise in a general average case resulting from the grounding of a vessel. I mention that so that parties may consider that possibility in any future general average arising from a grounding. Such a course may be particularly appropriate where, as here, the amount in dispute is, in relative terms, modest.

7. The court also heard evidence from Captain Greenfield on questions relating to seaworthiness and due diligence with regard to manning and training. However, having regard to the way in which the Cargo Interests' case was put on these issues his evidence was not at the heart of the case, as was apparent from the fact that his cross examination was very short indeed.

8. There were also statements in writing from, in particular, the second officer, Mr. Autida, who had prepared the passage plan and was officer of the watch, and from Mr. Chauffeteau, the vessel's DPA at the time of the casualty. He was responsible for auditing the vessel's practices and its compliance with the Owners' SMS. The last audit he carried out before the grounding was in October 2010. The vessel had not by then called at Xiamen.

The vessel

9. CMA CGM LIBRA is a container vessel, post-Panamax size, which was built in South Korea in 2009. She has 8 cargo holds forward of the engine room and accommodation and 2 holds aft. Her length overall is 353 metres and her breadth 45.66 metres. The distance from bridge to stem is 273 metres. Her summer load draft is 15.524 metres and her summer displacement 171,371 tonnes. She is fitted with a single marine diesel engine developing a maximum rated output of 96,875 BHP at 104 RPM and producing a maximum speed of about 24.7 knots. Propulsion is by a single right-hand turning 6 blade fixed pitch propeller, controlled remotely from the bridge. To assist manoeuvring the vessel is also fitted with a bow thruster. Her manoeuvring full speed is 16 knots at 65 RPM.

10. She is fitted with an ARPA radar and an ECDIS. The ARPA is to starboard of the main conning console and to starboard of that is the ECDIS. On the passage in question the master was positioned on the bridge to starboard of the main conning console with the ARPA ahead of him. The chartroom was behind him.

11. The vessel was equipped with British Admiralty paper charts and with the Admiralty Sailing Directions. In addition she carried C-Map Professional Plus proprietary electronic charts which were installed on her ECDIS.

12. The vessel's working chart (Admiralty chart no.3449) was taken by the Chinese authorities and returned for use during the refloating operation. However it appears that at some stage thereafter it was mislaid, so that the original was not in evidence. What was in evidence were photocopies of parts of the chart taken by the master and photographs of parts of the chart taken by the Owners' solicitor.

The port of Xiamen

13. According to the Admiralty Sailing Directions, Xiamen is one of the largest ports in China. It is approached and entered from the SE through a fairway leading NW. The fairway is described as "marked by light buoys".

14. The fairway is marked on the chart by a pecked magenta line on both sides. It is over a cable in width. The local advice to masters is that it is 300 metres. in width. On the water it is marked, as the chart shows and as the Admiralty Sailing Directions state, by buoys. In the particular part of the fairway with which this case is concerned the

fairway is marked on the east side by buoys 15 and 11 (there is no buoy 13) and on the west side by buoys 16, 14-1, 14 and 12. Leaving aside buoy 16 which is positioned (for reasons the experts could not explain) over 2 cables to the west of the marked fairway, buoys are positioned about half a cable beyond the marked fairway so that the width of the buoyed fairway is over 2 cables. Although the chart notes depths in this part of the fairway of between 19 and 31 metres, Notice to Mariners NM 6274(P)/10 issued in December 2010 advised mariners at paragraph 11 that the fairway had a least depth of 14 metres. There is marked around buoy 14.1 a danger area, which extends into the fairway, with a charted depth of 14.9 metres in the fairway. There is also marked west of buoy 15 on the western edge of the fairway a danger area which extends into the fairway with a charted depth of 15.9 metres.

15. The Admiralty chart shows that beyond both sides of the fairway there are marked "Former Mined Areas". This is a reference to mines laid in the Second World War and in the Korean War. To the west of the fairway in the region of buoy 14-1 the limit of such areas is under 3 cables distant from the fairway. The chart notes, as do the Admiralty Sailing Directions, that such areas are not considered hazardous to surface navigation but the Admiralty Sailing Directions add that the existence of the minefields has inhibited hydrographic surveying and therefore "outside the swept routes there may be many uncharted wrecks and isolated shoals especially dangerous to deep-draught vessels". Both experts agreed that the swept routes referred to the fairway (which would be "swept" by means of a line swept across the length of the fairway and/or sounded to identify the least depth).

16. The Owners had formed their own views about navigation in Xiamen. The vessel's file contained a memorandum dated 5 September 2006 and entitled "Sailing Xiamen & Chinese Waters". It referred to three accidents (two groundings and one collision) in Xiamen and said as follows:

> "Captains have to be aware that the Xiamen waters are difficult waters because of traffic, weather conditions, currents, shallow waters, narrow channel, later inner water pilotage and weak traffic organisation……We want to draw your attention that sailing Xiamen waters and more generally speaking Chinese waters should be done with utmost care and diligent caution……"

17. In the light of this document the master accepted in cross-examination that

> "it was well known within CMA [the Owners] that Xiamen was a difficult port to navigate in and out of."

18. To the same effect was Captain Gansinhounde who accepted that

> "it is a particular feature of that port [Xiamen] that there may be uncharted shallows outside the fairway" and that "that is something that was specifically known to CMA before this grounding."

19. Notice to Mariners NM 6274(P)/10, issued in December 2010, also advised mariners at paragraph 2 that "numerous depths less than the charted exist within, and in the

approaches to Xiamen Gang". The "most significant" were identified but none were in the fairway. Whereas paragraph 11 (which dealt with the least depth in the fairway, see above) was a new or revised entry, paragraph 2 was not. I infer that it was a warning which had been stated in a previous Notice to Mariners.

20. Notice to Mariners NM 6275/10, also issued in December 2010, required the legend on the chart which referred to the previous Notice to Mariners to be amended so as to refer to NM 6274(P)/10. The legend appears in the fairway between buoys 15 and 17. It reads (as corrected) "See NM 6274(P)/10".

21. Notice to Mariners 1691/11 which was issued in April 2011 required several corrections to charted depths. Two are of particular relevance to this case. A depth of 4.8 metres was to be marked (outside the fairway) a little over 3 cables to the south west of buoy 14-1 and a depth of 1.2 metres (also outside the fairway) was to be marked on a 30 metre contour over 5 cables to the south west of buoy 14. The latter appears to be a very obvious example of a depth of water considerably less than the charted depth.

The grounding position

22. Shortly before 0235 on 18 May 2011 the vessel grounded whilst leaving Xiamen. She was about 4 cables to the west of the buoyed fairway in an area where there were charted depths of over 30 metres. She was between the rocks of Juijie Jiao (which were under 2 cables to the west of the buoyed channel) and the sounding of 1.2 metres newly marked on the 30 metre contour. The latter sounding was less than a cable to starboard of the vessel.

23. The paper Admiralty chart did not indicate the shoal on which the vessel grounded (though the sounding of 1.2 metres which was added to the chart in April 2011 might have been part of that shoal). However, there is evidence that the shoal on which the vessel grounded was marked on an amendment to the ENC (cell C1514291) which was issued on 13 January 2011 by the Hydrographic Office. But the vessel did not carry (and was not required by SOLAS to carry) ENC charts.

The passage plan

24. The trial was concerned primarily with the passage plan prepared for the voyage from Xiamen and with the vessel's navigation. I shall first describe the passage plan.

25. The passage plan was prepared by the second officer. It was contained in two documents, the first being a document provided to the vessel by the Owners in which the plan was to be recorded and the second being the vessel's working chart.

26. The first document entitled Passage Plan consisted of 5 pages plus the relevant tide tables and an Under Keel Clearance (UKC) calculation. Page 2 was for the passage from the berth to the pilot station, off buoy 19. Page 1 was for the passage from the pilot station to Hong Kong. Page 3 was for the passage from the pilot station off Hong Kong to berth. I shall describe the more relevant features of the plan.

27. The plan consisted of waypoints taken from a standard route known as GPS Route 10. The course between the way points was stated. There was a column for "comments" but none were made.

28. Page 4 listed the Admiralty charts and Sailing Directions to be used. There was a section dealing with "Tide Status" but no details were filled in. Page 5 recorded the vessel's draft, 15.15 metres even keel. The plan was recorded on that page as having been approved by the master on 17 May 2011.

29. The UKC calculation was based upon a depth of 25 metres which was appropriate for the passage from the seaward end of the fairway. There was no calculation for the passage along the fairway. The tide tables showed that on 18 May 2011 HW was at 01:00 with a height of 6.1 metres and that LW was at 07:00 with a height of 1.4 metres.

30. The working chart contained a course line marked on the chart to buoy 19, the pilot station, and from there to buoy 15. The course line to buoy 15 indicated that the vessel would pass buoy 15 on the starboard side edge of the fairway, so as to pass the danger area marked on the chart to port. From there the course line took the vessel across to the port side of the fairway so as to pass the danger area off buoy 14-1 to starboard. The course line showed the vessel within the buoyed fairway at all times.

31. There are two matters to note about this course line. First, in order to arrive at the intended point off buoy 15 a way point different from that stated in the passage plan was adopted. Second, a course of 140 degrees to the revised way point was required instead of the course of 137 degrees shown on the passage plan. Also, in order to arrive at the intended point off buoy 14-1 a course of 134 degrees was required instead of the course of 139 degree shown on the passage plan.

32. It is further to be noted that the chart contained a notation of 136 degrees for the course from buoy 19 to buoy 15 and a course line of 139 degrees from buoy 15 to buy 14-1. These were not the courses indicated by the course line on the chart and must have related to an earlier passage and had not been erased and replaced by courses of 140 and 134 degrees.

33. There was an issue as to whether there were marked on the chart any "no go" areas, that is, areas where it was not safe for the vessel to go. The conventional way of doing so is by marking such areas by means of a hatched line. The master accepted that this was the "more usual" way, the "correct" way, and the "generally known" way of doing so. One such area was marked on chart 1767 for the passage from the seaward end of the fairway. It was around a sounding of 2 metres and a wreck. No such areas were marked on chart 3449 to either side of the fairway. However, to the west of buoy 14-1 there was a line on the chart within the former mined area. It was suggested that this marked a "no go" area but neither the master nor the second officer made mention of it in their contemporaneous statements. The second officer in his second witness statement in 2018, seven years after the event, said that the line was the boundary line of a "no go" area which he "probably" marked though he had no specific recollection of doing so. I consider it unlikely that this was intended to mark a "no go" area. Had it been intended as such I would have expected to find a hatched line in accordance with the conventional way of marking such areas. It is difficult to say why it was placed on the chart or when but I am not persuaded that it was intended to mark a "no-go" area.

It was suggested that it might have concerned the refloating operations. That is possible because the master said in his supplementary witness statement (made in 2018) that it was a line which he may have drawn after the grounding.

The vessel's navigation

34. The vessel carried a Voyage Data Recorder (VDR). As a result the track of the vessel whilst leaving Xiamen can be and has been reconstructed using the appropriate software. In addition the audio recording of what was said on the bridge has been transcribed.

35. The vessel left the quayside at 0133 on 18 May 2011. This was after high water and a little later than the master had intended to depart. Thus the tide was ebbing so that there was, as described by the master, "a strong following current" and the available depth of water would have been less than he had anticipated. The vessel's draft was 15.15 metres and with her engines at half ahead her speed through the water was expected to be about 12 knots. Her squat was about 1.8 metres. Allowing for the increase in depth caused by high water (over 5 metres but falling) there would have been sufficient UKC in the channel. The weather was fine with a light westerly breeze. The second officer was on the bridge with the master and a helmsman was at the wheel. For the passage to buoy 19 a local pilot was also on board.

36. At about 0210 the vessel was steering a course of 135 degrees with a speed over the ground of more than 11 knots. She was on the starboard side of the fairway and was passing buoy 20 to starboard. Between then and 0220 her helm was gradually altered to starboard so that shortly before 0219 her helm was steering 143 degrees. Her speed over the ground increased to over 12 knots. As the vessel approached buoy 15 she aimed to pass a dangerous shallow area to port which brought her, on the chart, to a position just outside the magenta pecked line of the fairway, but still within the buoyed fairway.

37. The second officer marked the vessel's position on the working chart at 0220. She was on the starboard edge of the fairway approaching buoy 15.

38. I have appended to this judgment an enlarged copy of that part of the chart which shows the fairway and adjacent waters from buoy 15 to the grounding point to the west of the rocks at Jiujie Jiao. The light blue line leading from the starboard side of the fairway off buoy 15 to the portside of the fairway off buoy 14-1 is the track placed on the chart by the second officer as part of the passage plan. (The reference to 134 degrees true and 139 degrees true were not marked on the chart by the second officer.) The red line traces the actual track of the vessel. The enlarged copy will enable the reader to follow my brief summary of the navigation from buoy 15.

39. On passing buoy 15 and the dangerous shallow area to port her helm was put gradually to port. The vessel was a little further to the west than intended, as the chart extract shows. By 0221 the helm was steering 135 degrees. At 0222 the master said "now we will have to move on the left side of the channel…..because of these wrecks [rocks probably] which are ahead of us". The helm was ordered to 133 degrees and then, at about 0224, to 131 degrees. The master must have been intending to cross onto the portside of the fairway.

40. Then, shortly before 0225 the master said "Okay. Come to starboard, 138". Between then and 0228 the helm was ordered further to starboard, reaching 170 degrees. The aim of this somewhat striking change of helm, through almost 40 degrees, was to pass buoy 14-1, and the danger area around it, to port. Not only did this take the vessel out of the fairway marked by the magenta pecked lines on the channel but it also took the vessel out of the buoyed fairway.

41. Just after 0228 the master ordered "hard to port." The aim of this was presumably to return to the fairway before buoy 14. But this attempt did not last long. Just after 0230 the master ordered hard to starboard and said: "We don't have time to enter the fairway." It appears that his aim was now to pass the rocks and shallow water at Jiujie Jiao to port. The master said: "Yes, we are leaving the shallow water portside, and then we enter the fairway." At about 0231:30 the master ordered the helm amidships, followed by several port helm movements.

42. The second officer marked the vessel's position on the chart at 0232. This indicated that the vessel was about 2 and half cables to the west of the fairway shaping to pass buoy 14 to port.

43. There followed various helm and engine movements but at about 0235 the master concluded that the vessel was aground. She had probably grounded before that. By 0234 her speed had fallen to 5 knots over the ground and the depth of water had rapidly decreased. She was in an area where there were charted depths of over 30 metres. She was between the rocks of Jiujie Jiao and the depth of 1.2 metres marked on the 30 metre contour. The latter was less than a cable to starboard. She was over 4 cables west of the fairway.

44. There is a dispute as to whether the master's decision to pass buoy 14-1 to port, and so leave the buoyed channel, was negligent. Captain Whyte expressed the opinion in his first report that it was prudent for the master to seek to avoid the shallows near buoy 14-1. He said "the vessel had plenty of sea room on the starboard side and sufficient depth of water within the 20 metre contour defined on both the paper and electronic charts. It was more prudent for a deep-draught vessel to navigate in safe water outside the fairway/channel than it was to unnecessarily traverse areas where the charted depth substantially reduced the UKC." In the joint memorandum he said that the master was "entitled to leave the Fairway for any navigational reason within the available safe water." In his supplementary report he said that "if there was sufficient water, which there was, then the master was perfectly entitled to increase the passing distance of the charted shallows around buoy 14-1." By contrast Captain Hart expressed the opinion that the master was not aware of the "increased depth in the Fairway and the newly advised shoal soundings outside the Fairway." If he had been Captain Hart thought it unlikely that the master would have thought it advisable to deviate from the planned track through the charted Fairway. In the joint memorandum he expressed the view that "the actions of the master with regard to planning and execution of the Vessel's outward passage were not those of a competent master" and that it was "a gross error of navigation" to deviate from the planned track. In his supplementary report he maintained his opinion that "the Vessel should have remained in the charted Fairway, as departing from the Fairway introduced significant and unnecessary navigational risk."

45. Before reaching a view on this matter it is necessary to consider the evidence as to the master's reasons for deciding to pass buoy 14-1 to port. The master is reported as having explained his decision on the very day of the grounding in these terms:

> Approaching the buoy no. 14-1 I decided to leave it in Port side (because upon arrival in Xiamen the day before, north-west bound, the VTS warned me that there is shallow water ahead on the East of the channel). When I tried to re-enter the channel today, nearby Buoy 14-1, the vessel was steering with difficulty due to the deep draught and with trim zero. I noticed that the vessel is not responding fast enough to come back to port and in order to avoid the awash rocks ahead I tried to go ahead and remain west of the Jiujia rocks, to follow a route outside the channel as the chart was showing depths of 40-35 metres ahead, with the intention to rejoin the channel after that.

46. The master's stated reason, on the very day of the grounding incident, for leaving buoy 14-1 to port was that he had in mind having been told by VTS on the inward passage that there was shallow water "ahead on the East of the channel". This suggests that, having begun to alter course to port to follow the passage plan marked on the chart (by altering course to port from 141 to 131 degrees) to pass buoy 14-1 to starboard, the master then changed his mind. Yet the master's report does not reveal any appreciation by him that he was departing from the passage plan which he had approved with knowledge of what the VTS had warned him on his inbound passage. But in considering his thought processes I must bear in mind that this was a short report and that the report may not reveal all of his thinking.

47. Some three days later a witness statement was taken from him. In that statement he gave much the same reason.

> "…..as we passed No.15 Buoy a minute or so later I considered my options about what distance to pass off No.14-1 Buoy just over a mile ahead of us. I recalled the incident inward bound when the VTS called us warning that we were running into shallow water to the north east of the fairway above No.14-1 Buoy. I was reluctant to head up into that area again to clear the stony patch around No.14-1 Buoy and so considered leaving that buoy instead to port where there was about 30 metres of water. Although this meant I would leave the fairway briefly there looked to be plenty of water for me to rejoin the fairway between Nos 14-1 and 14 Buoys. I therefore ordered the helm to starboard to put No.14-1 Buoy on our port bow".

48. Again, there is no apparent recognition that the master was deciding to depart from the passage plan marked on the chart. The master does not mention consulting the chart prior to making his decision. However, as I understood the evidence, the planned route would have been apparent to him from both the radar and the ECDIS. Moreover, he had been ordering port helm which was consistent with following the passage plan marked on the chart, radar and ECDIS.

49. The master appears to have decided, when already altering course to port to comply with the planned route on the chart, that it was not safe to pass buoy 14-1 to starboard. However, he must have thought it was safe the previous day, when approving the passage plan. His concern during the passage reflects a poor assessment of the position because there was a least depth of water in the fairway of 14 metres plus the tide which, it was common ground, was sufficient for the vessel. The master accepted when cross-examined that the VTS concern on the inward passage had been as to shallows outside and to the east of the fairway, not to shallows in the fairway.

50. The master stated that he considered that, if he left buoy 14-1 to port, there was about 30 metres of water. The chart indeed shows depths of 29.9 and 33 metres to the west of buoy 14-1. But the crucial question, as it seems to me, is whether it was prudent for the master to rely upon such charted depths being reliable. There is a formidable case that it was not prudent to rely upon them. First, Notice to Mariners NM 6274(P)/10, issued in December 2010, advised mariners at paragraph 2 that "numerous depths less than the charted exist within, and in the approaches to Xiamen Gang". It is true that the "most significant" which were listed were not in his location but the warning was nevertheless clear that in the approaches to Xiamen there were "numerous depths" less than the charted depths. Second, Notice to Mariners NM 1691/11 issued in April 2011 identified two soundings which were to be marked on the chart. One, 4.8 metres, was to the west of buoy 14-1. The other, 1.2 metres, was further to the south east but on the 30 metre contour, a striking confirmation that the charted depths were not accurate. Third, the master's revised track (after leaving a sounding of 14.8 metres to starboard) would cause the vessel to head towards the new sounding of 4.8 metres, though he intended to alter back towards the fairway before reaching that sounding. However, Captain Whyte accepted when cross-examined that the master's intended plan to return to the channel so as to pass buoy 14 to starboard was not achievable. This was because of the need to leave a safe distance from the danger area around buoy 14-1 and the difficulty of achieving the necessary rate of turn to port from such a position.

51. Captain Hart understood NM 62474(P)/10 to provide mariners with information that within the fairway the least depth was 14 metres. I did not understand Captain Whyte to disagree with that. Indeed, the advice to the master from the agents Penavico was to the effect that the depth in the fairway was 14 metres. That depth had also been confirmed by the pilot to the master before the pilot left at buoy 19.

52. Captain Hart also understood the notice to warn mariners that depths less than those charted existed. In his opinion the prudent mariner would conclude that it was unsafe to navigate outside the fairway. The master accepted when cross-examined that NM 6274(P)/10 contained "a clear warning…that if you leave the dredged fairway you may encounter uncharted shoal areas." Captain Whyte's opinion was not so clear cut. In his opinion a prudent mariner would give "due weight" to the "warning" in the notice to mariners but would consider that warning in conjunction with the information on the chart that the survey on which it was based was carried out in 2003, which meant that "they shouldn't be that unreliable". But he accepted that "faced with those two bits of information, the modern survey, this warning, [the prudent mariner] would probably feel a little bit apprehensive about the depths available...." Despite that comment counsel for the Owners submitted that a reasonably prudent master would not discount all charted depths outside of the

fairway but rather "would take charted depths in waters adjacent to the fairway and the fairway buoys as being generally reliable". Counsel relied upon evidence from the master and Captain Hart that the survey and dredging work would be in waters adjacent to the fairway.

53. With regard to this conflict of expert opinion I prefer and accept the opinion of Captain Hart. Paragraphs 2 and 11 of the Notice to Mariners contain both a warning to mariners that it is unsafe to rely upon charted depths and advice as to the least depth in the fairway. When read together by an ordinarily prudent mariner they advise that it is safe to navigate within the fairway having regard to there being a least depth of 14 metres but not outside the fairway where no information is given as to the least depth and where there are "numerous" depths less than those charted. Indeed, the existence of such depths was confirmed by NM 1691/11 which required corrections to the chart showing a depth of 4.8 metres a little over 3 cables to the south west of buoy 14-1 and a depth of 1.2 metres on a 30 metre contour over 5 cables to the south west of buoy 14. Captain Whyte's approach (and counsel's submission) appears to me to be one which invites the ordinary mariner to discount the warning in NM 6274(P)/10. It runs counter to the clear warning in NM 6274(P)/10 not to rely upon the charted depths. Captain Whyte accepted that NM 6274)P)/10 was "a crucial" and a "paramount" document. If so it is very difficult to understand why he had such difficulty in accepting that the prudent mariner would understand it as a warning not to rely upon the charted depths in the Admiralty chart. The answer may well be that, having formed and expressed his opinion without regard to NM 6274(P)/10 he found it difficult to re-assess the matter in the light of that notice.

54. I therefore consider that the master's decision to depart from the passage plan and to navigate outside of the *buoyed* fairway was negligent, being a decision which a prudent mariner would not have taken. His reliance on the charted depths outside the buoyed fairway was not prudent and his planned return to the fairway by passing buoy 14 to starboard was not achievable. In the result the master found himself altering the heading of the vessel through almost 40 degrees to starboard and then, when his intended manoeuvre back to the fairway could not be achieved, applying both hard port helm and then hard starboard helm when outside the buoyed fairway and having to avoid the rocks at Jiujie Jiao. Those are remarkable helm movements for a vessel navigating in waters in which the Owners had advised the master to navigate with "utmost care and diligent caution". They flow from his initial decision to leave the buoyed fairway whilst planning to rejoin the fairway in a manner which could not be achieved. It is to be noted from Captain Whyte's AIS data for large vessels entering and leaving Xiamen between 2010 and 2012 that no large vessel passed buoy 14-1 to port in that two year period.

Actionable fault and the burden of proof

55. However, there can only be actionable fault within the meaning of the York-Antwerp Rules if the grounding was caused by a failure by the Owners to exercise due diligence to make the vessel seaworthy. Whilst the Cargo Interests' case in this regard has, as counsel for the Owners remarked, ranged far and wide and had developed throughout the course of the litigation the matter upon which attention was focussed at trial was whether the vessel's passage plan was in accordance with good practice and, if not, whether such defects as there were caused the grounding and, if they did, whether there had been a failure of due diligence to make the vessel seaworthy.

56. Before considering these matters it is necessary to mention the burden of proof. The conventional view is that the burden lies on the Cargo Interests to establish that the vessel was unseaworthy and that such unseaworthiness caused the grounding. If those matters are established than the burden lies on the Owners to establish that due diligence was exercised to make the vessel seaworthy; see *Scrutton on Charterparties and Bills of Lading* 23rd.ed. at paragraph 14-072, *Bills of Lading* 2nd.ed. by Aikens and others at paragraph 10-150 and *General Average* by Rose 3rd.ed . paragraph 4.9

57. However, it was submitted on behalf of the Cargo Interests that, following the decision of the Supreme Court in *Volcafe Ltd. v Cia Sud Americana de Vaporesi SA* [2018] 3 WLR 2087, the burden lay on the Owners to prove that the general average expenditure had not been caused by a breach of Article III r.1. by proving that the vessel was seaworthy, or that if it was not due diligence had been exercised or that any unseaworthiness was not causative. I do not accept that submission. *Volcafe* was concerned with Article III r.2. The Supreme Court held that, because the carrier was a bailee, the carrier bore the legal burden of proving that there had been no breach of Article III r.2 or that the damage in question had been caused by one of the exceptions in Article IV r.2(a). However, the present case is concerned with Article III r.1. Lord Sumption noted at paragraph 15 that Article IV r.1 was an article which dealt with the burden of proof for a specific purpose. Article IV r.1 provides that where loss or damage results from unseaworthiness the burden of proving the exercise of due diligence shall be on the carrier. Thus it deals with the burden of proof for the purposes of Article III r.1. It is implicit in Article IV r.1 that the burden of proving causative unseaworthiness must lie upon the cargo owner. For the article assumes that such unseaworthiness has been established. In my judgment the conventional view as to the burden of proof remains good law.

58. I note that no reliance was placed on Rule E of the York Antwerp Rules which provides that the onus of proof is upon the party claiming in general average to show that the loss or expense claimed is properly allowable as general average; cf *The Cape Bonny* [2018] 1 Lloyd's Rep. 356 at paragraphs 157-163. Counsel addressed their respective submissions by reference to the Hague Rules. I have therefore said nothing about Rule E.

The criticisms of the passage plan

59. I have already described the passage plan earlier in this judgment.

60. It cannot be disputed that it was defective in at least some respects. First, the formal document recording the passage plan had the wrong position for the way point off buoy 15. Second, and as a result, the formal document did not record the course to be steered to buoys 15 and 14-1. Third, the working chart stated courses which were not those required. However, such defects were not likely to have been causative of the grounding because the intended way point off buoy 15 and the required courses were, as I understood the evidence, on the radar and ECDIS. Thus the master would know which course he was to steer to buoys 15 and 14-1.

61. The passage plan did not contain a UKC calculation for transiting the fairway. The master gave evidence that he made a calculation on a piece of paper which he did not keep. He had not mentioned this in his contemporaneous witness statement. It is unnecessary to decide whether he did in fact make such a calculation because it is not

suggested that any failure to make a UKC calculation for the fairway transit was causative.

62. It was submitted on behalf of the Cargo Interests, relying upon the expert evidence of Captain Hart, that there ought to have been noted on the chart that any area outside the charted fairway was a "no go" area. This was not accepted by Captain Whyte who said that the only "no go" area which ought to have been marked on the chart was an area from a point west of buoy 16 to a point west of Jiujie Jiao within the former mined area. Variations on such notations were discussed in the evidence.

63. This dispute was manifest from the oral evidence of the experts. It was not so manifest from their written reports because Captain Hart did not in terms articulate in his report the precise form in which the no go area should have been identified on the chart. But he did highlight NM 6274(P)/10 as being "of direct relevance" to the matter (at paragraph 2.5.8) and noted paragraphs 2 and 11 in particular. He also noted (at paragraph 2.6.4) the need for a passage plan to mark on the chart relatively shallow waters, "known colloquially as "no go" areas". He observed (at paragraph 4.1.4) that it was not clear to him that the contents of NM 6274(P)/10 had been noted and applied to the chart. He concluded (at paragraph 4.4.17) under the heading of "Passage Plan" that the working chart was not "systematically marked up to show …. 'no go' areas". Captain Whyte in his supplementary report considered that the vessel had a passage plan of "sufficient standard" and that "any deficiency in making all of the pencil amendments regarding Preliminary NM 6274)P)/10 to Admiralty Chart 3449 did not contribute to the grounding".

64. The IMO Guidelines state that the appraisal of the intended passage should include "all areas of danger" and that the passage plan should include "all areas of danger". The presence of numerous depths less than the charted depths in the approaches to Xiamen must be, it seems to me, a source of danger. For mariners would ordinarily regard the charted depths as being accurate. It was therefore necessary to ensure that when the navigator of a vessel leaving Xiamen was faced with a decision whether to remain within the buoyed fairway or to navigate outside the buoyed fairway he had in mind the warning that charted depths outside the buoyed fairway may be unreliable. The working chart contained a note which advised the mariner to "see" NM 6274(P)/10. That note was placed on the chart within the fairway between buoys 15 and 18. However, that note does not in terms remind the mariner of the warning contained within it. In the present case the master said in his witness statement taken three days after the grounding that there was about 30 metres of water to the west of buoy 14-1. That suggests that he was relying upon the charted depths. His statement made no reference to NM 6274(P)/10 or to the warning which it contained. Thus it appears that the note on the chart did not serve to remind him of the warning within it. It is also to be noted that Captain Whyte prepared his first report without noting NM 6274(P)/10 or the warning which it contained. He also expressed the view that there was sufficient water where the vessel wished to navigate. I find it difficult to accept that he would have expressed that view had he had NM 6274(P)/10 in mind. The evidence in this case therefore shows that there ought to be placed on the working chart something which ensures that the navigator is aware of the danger created by the numerous depths in the approaches to Xiamen which are less than the charted depths.

65. The purpose of a passage plan is to plan the passage so as to ensure that the vessel is navigated safely; see the IMO Guidelines for Passage Planning. The Owners' own

guidance to their masters emphasised that the information noted on the passage plan should include "the areas to be avoided" and "navigation dangers such as ….shallow waters". Captain Whyte accepted that an important goal of passage planning was to identify areas where it was unsafe for the vessel to go and to prevent "bad real time decisions from being made." As Captain Hart put it, "a proper passage plan operates to prevent bad ad hoc decision making during the course of a passage." He said that "the absence of the identification of "no go areas" on the working chart meant that there was no pre-assessed visualisation of "safe" and "unsafe" waters on the working chart." Captain Hart noted that the ICS Bridge Procedures Guide advised that the marking on the chart of relatively shallow waters "is one technique which will assist the OOW when having to decide quickly to what extent to deviate without jeopardising safety and the marine environment."

66. The question in the present case was as to the manner in which it was prudent to note the danger identified by NM 6274(P)/10. As David Steel J. said in *The Torepo* [2002] 2 Lloyd's Reports 535 at paragraph 98:

> "Passage planning is not science. There is inevitably an element of judgment as to what annotations need to be added to the chart (or recorded elsewhere)."

67. Captain Hart said that the areas outside the charted fairway, that is, the areas outside the pecked magenta line shown on the chart, should be marked as "no go" areas in the conventional manner, that is, by marking them with a hatched line. This appears to me to ignore the fact that on the water navigation is conducted by reference to the buoyed fairway. The Admiralty Sailing Directions refer to the "fairway marked by light buoys". The master said in his witness statement that visibility was about 5-6 miles and that he could see "the flashing lights of the buoys marking the channel clearly enough". He also monitored the vessel's progress "by reference to the ECDIS keeping to the buoyed channel." Indeed, Captain Hart himself refers to the "buoyed channel" in paragraph 2.4.5 of his first report. Further, the AIS evidence for large vessels using the fairway in 2010-2012 which was collated by Captain Whyte showed many vessels outside the magenta lines but within the buoyed channel (though some may also have been beyond the buoyed channel on the east side, where there is a further fairway coming in from the east). Marking the "no go" areas as those outside the pecked magenta lines would, it seems to me, be a particularly cautious approach. I do not consider that all prudent mariners would judge such an approach to be necessary. It appears to me to be unnecessarily restrictive.

68. An alternative approach would be to mark as "no go" areas those areas outside the buoyed channel. The conventional means of reminding the navigator of areas of danger is by marking them as "no go areas" on the working chart by the means of a hatched pencil line. If that means were adopted with regard to Xiamen in 2011 that would involve marking a hatched line on both sides of the buoyed fairway and for the length of the buoyed fairway. That would render the chart "busy" which both experts agreed should, if possible, be avoided. Indeed Captain Hart also had in mind that there would be annotated on the chart a line at the side of the fairway which noted the least depth as stated in NM 6274(P)/10.

69. Counsel for the Cargo Interests submitted that "marking an extensive "no go" area is not overloading the chart with too much information; it is recording on the chart in

very clear fashion the one piece of information that the master has to have in mind; that he should stay in the fairway." But bearing in mind the need to avoid making the working chart too "busy" and bearing in mind that the same warning can be conveyed by writing a note on the chart, as Captain Hart also suggested, that "depths less than charted exist outside the fairway" I am not persuaded that the *only* way in which a passage plan could have been prudently prepared in this case was by means of hatched lines in pencil along the entire length of both sides of the fairway.

70. Nevertheless prudent passage planning required the danger created by the presence of numerous depths less than those charted outside the fairway to be noted on the chart. Such a note, in the terms suggested by Captain Hart, would immediately remind the officer navigating the vessel that it was unsafe to navigate outside the fairway. Such a note would do that which the IMO guidance on passage planning requires, namely, it would give a clear indication of the danger in navigating outside the fairway. In this regard it is to be noted that Captain Gansinhounde accepted that there was a particular warning at Xiamen that there was a risk of uncharted shallows outside the fairway and that such warning ought to be placed on the passage plan or on the chart. It is also to be noted that when cross-examined on this matter Captain Whyte said that he would have been content with the warning "being part of the passage plan, so recorded in the plan". As to writing it on the chart he thought this was a matter of "preference". My conclusion, having considered the expert and other evidence, is that whilst it would of course be prudent to note the warning in the passage plan it would also be necessary (and prudent) to mark the warning on the chart since that is the primary document to which the officer navigating the vessel would refer when making navigational decisions in the course of the outward passage.

71. Captain Whyte said that he would have drawn on the chart a "no-go" area to the west of buoys 16, 14-1 and 14. It was illustrated on TH4 by a green hatched line. I do not accept that any prudent mariner would have adopted this approach. It was unsafe. Captain Whyte's hatched line goes, surprisingly, right up to shallow areas which would have been of danger to the vessel. Thus at the north western end it is adjacent to soundings of 0.3 metres, 6.3 metres and 6.5 metres. West of buoy 14-1 it passes about a half a cable from the (recently announced) sounding of 4.8 metres and at the south western end it is adjacent to an "obstruction" and the (recently announced) sounding of 1.2 metres. I am unable to accept that the prudent mariner would consider it safe to navigate so close to such obvious dangers. Furthermore, Captain Whyte's line would not alert the officer navigating the vessel to the danger of navigating outside the buoyed fairway.

72. Captain Whyte suggested that it was sufficient that NM 6274(P)/10 was "attached to the chart or adjacent to the chart". Captain Hart disagreed. He said in relation to NM 6274(P)/10 that "this is too much information for the Master or the Officer of the Watch to be reading when he is using that chart during the pilotage operation. There is too much there. ….It needs to be preprocessed." NM 6274(P)/10 consists of 16 notes or paragraphs. No.2 contains a warning about charted depths and no.11 contains information about the least depth within the fairway. I prefer Captain Hart's evidence on this issue. I do not consider that the attachment of NM 6274(P)/10 to the chart (or having it adjacent to the chart) would sufficiently have drawn the attention of the officer navigating the vessel to the danger created by the presence of numerous depths less than those charted. (In any event there was no evidence that it was attached to the

chart. The second officer said that he placed the notice in a "folder", as did the master who said in his oral evidence that the folder was kept "on the chart table". For the reasons given by Captain Hart that would not be sufficient.)

73. In the present case neither the passage plan nor the chart contained the necessary warning. It was therefore defective or inadequate and imprudently so. A source of danger when leaving Xiamen was not clearly marked as it ought to have been.

74. It is to be noted that on the vessel's previous trip to Xiamen in March 2011 (when a different master was in command) the warning was also not contained in the passage plan. Whether it was marked on the chart on that occasion is not known. But it is unlikely that it was, given that it was the same second officer who drew up the passage plans for both the March and May trips to Xiamen.

Unseaworthiness

75. The usual test of unseaworthiness is whether a prudent owner would have required the relevant defect, had he known of it, to be made good before sending his ship to sea; see *The Cape Bonny* [2018] 1 Lloyd's Reports 356 at paragraph 118 and *Scrutton on Charterparties and Bills of Lading* 23rd.ed. at paragraph 7-025. The submission made on behalf of the Cargo Interests was that a prudent owner would have required defects in the vessel's passage plan to be corrected before the vessel set out to sea.

76. Counsel on behalf of the Owners submitted that "a defective passage plan does not itself make a ship unseaworthy. A ship may be unseaworthy because there was not on board the vessel the means and material for a proper passage plan to be drawn up, but the negligent preparation by the crew of a defective passage plan is not an element of seaworthiness." It was submitted that passage planning is "part of navigation, albeit the planning takes place prior to the actual passage. Passage planning is not itself an aspect of seaworthiness."

77. The usual or conventional test on unseaworthiness to which I have referred above was set out in *McFadden v Blue Star Line* [1905 1 KB 697 at p.706. The conventional test was taken by Channel J. from *Carver on Carriage by Sea* so it is not only a long established but an authoritative test.

78. Given that, as stated in the IMO Resolution of 1999, a "well planned voyage" is of "essential importance for safety of life at sea, safety of navigation and protection of the marine environment" one would expect that the prudent owner, if he had known that his vessel was about to commence a voyage with a defective passage plan, would have required the defect to be made good before the vessel set out to sea. This is particularly so where the defect in question is an absence from the passage plan and chart of a warning that numerous depths outside the fairway are less than those charted and where the Owners had advised their masters of the difficulty of navigating in Xiamen waters because of, amongst other matters, "shallow waters" and urged "utmost care and diligent caution". The appropriate warning in the passage plan and on the chart would serve to reduce the risk of poor navigational decisions during the passage. It seems to me inconceivable that the prudent owner would allow the vessel to depart from Xiamen with a passage plan which was defective in the manner which I have found.

79. It is right to say, as counsel submitted, that passage planning is "the preparation" for safe navigation. However, it does not follow that "passage planning itself is not an aspect of seaworthiness". Seaworthiness extends to having on board the appropriate documentation, including the appropriate chart; see *Scrutton on Charterparties and Bills of Lading* 23rd.ed. at paragraph 7-028 and *Bills of Lading* by Aikens and others 2nd.ed. at paragraph 10.127. The presence on board a vessel of the appropriate chart is another aspect of the "preparation" for safe navigation. But the presence on board of the appropriate chart is also an aspect of seaworthiness. Further, where the Admiralty gives notice of a correction to the appropriate chart a vessel will not be seaworthy unless the chart has been corrected. If the vessel's navigating officer fails, before the commencement of the voyage, to correct the chart the vessel is thereby rendered unseaworthy. The correction of the chart is part of the "preparation" for safe navigation. A corrected chart does not cease to be an aspect of seaworthiness merely because its purpose is to assist in ensuring safe navigation. This can be illustrated by the facts of the present case. If the second officer had failed to correct the chart by noting the new soundings of 4.8 metres and 1.2 metres on the chart before the beginning of the voyage (as required by the April 2011 notice to mariners) such failure could have rendered the vessel unseaworthy at the beginning of the voyage.

80. Counsel submitted that the production of a defective passage plan is "an error of navigation and it matters not that it occurred prior to the commencement of the voyage." I am unable to accept this submission in the context of the Hague Rules. Article III r.1 places a seaworthiness obligation upon the carrier "before and at the beginning of the voyage". In this context the timing of the master's negligence therefore matters. Counsel referred to *Whistler International v Kawasaki Kisen Kaisha, The Hill Harmony* [2001] 1 AC 638 where, at p.657, Lord Hobhouse said that the character of a decision cannot be determined by where the decision is made. Thus a decision of a master, whilst his vessel was still at the berth, to leave on a certain state of the tide is a decision within the navigation and management exception of a charterparty. But Lord Hobhouse was not considering Article III r.1 of the Hague Rules. He was considering whether a decision not to pursue a certain route was a breach of the utmost despatch obligation in a time charter. Counsel relied upon this decision "in relation to the nature and definition of an act of navigation." But since the decision did not concern Article III r.1 or the concept of unseaworthiness the analysis in that case cannot, I think, assist in determining the issue which arises in the present case.

81. Article III r.2 is subject to Article IV r.2 (a) which provides that the carrier will not be responsible for loss caused by neglect in the "navigation or in the management of the ship". Article III r.1 is not so subject. If there is a causative breach of Article III r.1 the fact that a cause of the subsequent casualty is also negligent navigation will not protect the carrier from liability. Passage planning by the master before the beginning of the voyage is necessary for safe navigation. The document or documents in which it is recorded are for the benefit of the officers in fact navigating the vessel during the voyage. That circumstance does not remove passage planning from the scope of seaworthiness. Similarly, the ordering of sufficient engine room spares by the chief engineer is necessary for the safe management of the vessel during the voyage. But that circumstance does not remove the adequacy of engine room stores from the scope of seaworthiness. An adequate passage plan is now a required document at the

beginning of the voyage to ensure that the vessel is reasonably fit to carry her cargo safely to its destination.

82. Counsel for the Owners referred to *The Torepo* [2002] 2 Lloyd's Rep. 535, another claim in general average arising out of a grounding. David Steel J. held that the passage plan in that case (which had been brought on board by pilots after the voyage had commenced) was not defective. If it had been he noted that it had not been contended that the owners had not put in place a proper system for ensuring that the master received appropriate guidance and instruction with regard to passage planning (see paragraphs 98-100). Counsel on behalf of the Owners submitted that counsel in that case (Mr. Brenton QC, whose contributions to maritime law by his able, clear and knowledgeable advocacy were sadly interrupted by illness) had submitted that defective planning was an aspect of incompetence rather than what counsel described as "standalone unseaworthiness" (see paragraph 101) and that that approach to the case by Mr. Brenton QC supported the submission made on behalf of the Owners in this case. I am not persuaded that the Owners can gain much from this case.

83. The facts of *The Torepo* appear to have been materially different from those of the present case. The voyage from La Plata, Argentina to Esmeraldas, Ecuador began on 2 July; see paragraphs 13-16. On the same day it was decided that the route would be via the Magellan Straits; see paragraph 17. On 7 July two pilots boarded at Possession Bay off Punta Dungeness with their own Chilean charts which included charts for a passage through the Patagonian Channels; see paragraph 18. On 8 July the vessel had reached a position near the western end of the Magellan Straits when she diverted into the Patagonian Channels; see paragraph 22. On 9 July the vessel grounded; see paragraph 25. The judge found that the master was unaware of the possibility that his vessel might be required to negotiate the Patagonian Channels until the pilots advised him of that on 7 July; see paragraphs 60-62. The judge also accepted the master's evidence that he called a meeting of the navigating officers prior to entry into the Patagonian Channels to discuss how to deal with the unusual situation of being entirely dependent on the pilot's charts; see paragraph 64. The criticism advanced of the passage plan was of "the passage plan contained on the pilot's large-scale charts on which the master and officers of Torepo were relying"; see paragraph 97. Those criticisms were not accepted; see paragraphs 98-99. Thus on the facts of the case, where the charts in question were only brought on board by the pilots after the voyage had been commenced, there was no scope for arguing that any failure by the master prior to the commencement of the voyage amounted to a breach of the owners' duty to exercise due diligence to make the vessel seaworthy before the beginning of the voyage. Further, all criticisms of the master's conduct with regard to passage planning (both at the commencement of the voyage and when the pilots boarded) were rejected by the judge; see paragraphs 101-111. So on the facts found by the judge there was no lack of care by the master. It is true that Mr. Brenton QC does not appear to have argued that any defects in the passage plan brought on board by the pilots caused the vessel to be unseaworthy. The contract of carriage in that case contained a continuing obligation of due diligence to render the vessel seaworthy; see paragraph 123. Precisely how the classic test of unseaworthiness would operate in such a case where the vessel was seaworthy at the beginning of the voyage but pilots later boarded with a defective passage plan is not clear. What is clear is that David Steel J. did not have to deal with the submission which has been made in this case in connection with

Article III r.1 and that any such submission would have failed on the facts as found by the judge.

84. Counsel also relied upon *Cosco Bulk carrier v Tianjin General Nice Coke ad Chemicals, The Jia Li Hai* [2018] 1 Lloyd's Rep.396 in support of the proposition that a defective passage plan does not *ipso facto* render a vessel unseaworthy. In that case there had been a collision which had given rise to general average expenditure. The cargo insurer who had given a general average guarantee defended the claim against it on the ground that the "vessel had no or no adequate passage planning, bridge management and/or safety management systems in operation to deal with the ordinary incidents of the voyage" and that "had such systems been in place, the collision would not have occurred"; see paragraph 5. The claimant sought and obtained summary judgment. It is apparent from the judgment that the insurer's defence was wholly unparticularised. Knowles J. observed in paragraph 13 that the insurer could "perhaps show that systems were breached on this occasion, but it cannot show inadequate systems or inadequate arrangements for implementation of those systems." Whether the judge had in mind a breach with regard to passage planning as opposed to bridge management or safety management systems is not stated. Further, it may be that, as suggested by counsel for the Cargo Interests, the "breach of the systems" which the judge had in mind was an error in navigation during the voyage which led to the collision. I do not consider therefore that it can safely be said that the approach of the judge shows that a defective passage plan does not *ipso facto* render a vessel unseaworthy.

85. In his last written submission Counsel for the Owners relied upon *A Meredith Jones and Co. Ltd. v Vangemar Shipping Co. Ltd. (The Apostolis)* [1997] 2 Lloyd's Rep. 241 and the comment upon that case in *Voyage Charters* by Cooke and others at paragraph 85.95 that "there must be something about the state of the vessel, her crew or equipment, so that the mere performance of a function which is not intrinsic to the vessel but which may pose an ephemeral risk does not amount to unseaworthiness". Phillips LJ said, at p.257, that "for a ship to be unseaworthy, or more strictly uncargoworthy, there must be some attribute of the ship itself which threatens the safety of the cargo." However, it is well recognised that if a vessel's charts are not up to date that is an "attribute" of the vessel (or "intrinsic" to the vessel) which can render her unseaworthy. A proper passage plan is now, like an up to date and properly corrected chart, a document which is required at the beginning of the voyage. If a vessel carries a chart which the second officer has failed to correct to ensure that it is up to date or carries a passage plan which is defective because it lacks a required warning of "no go" areas then those are two aspects of the vessel's documentation which are capable of rendering the vessel unseaworthy at the beginning of the voyage.

86. Counsel for the Owners also submitted that a "one-off defective passage plan" did not amount to unseaworthiness and that the traditional test of seaworthiness in *McFadden v Blue Star Line* was never intended to apply to such a matter. He further submitted that "in relation to matters like passage planning" a carrier's duty under Article III r.1 was discharged by putting in place proper systems and ensuring that the requisite materials were on board to ensure that the master and navigating officer were able to prepare an adequate passage plan before the beginning of the voyage. But the same could be said about chart corrections. Yet, if the officer charged with correcting the chart fails to do so in a material respect before the beginning of the voyage, then his

"one-off failure" is capable of rendering the vessel unseaworthy. The test in *McFadden v Blue Star Line* can properly be applied when deciding whether such a failure makes the vessel unseaworthy. I am therefore unable to accept the submission that a one-off defective passage plan cannot amount to unseaworthiness or that the test in *McFadden v Blue Star Line* should not be applied to it. Furthermore, whilst the lack of proper systems can render a vessel unseaworthy, counsel's submission, by concentrating upon the carrier's own actions to the exclusion of those of his servants or agents, confuses the issue of seaworthiness with the issue of due diligence, which (see below) is a non-delegable duty. In any event, the defective passage plan in this case was probably not "one-off". The same defect was probably present in the March 2011 voyage; see paragraph 74 above.

87. Counsel said that there was no previous case in which it had been held that a defective passage plan rendered the vessel unseaworthy. That appears to be the case (because I was not referred to any such case). But just as the standard of seaworthiness may rise with improved knowledge of shipbuilding (see *Scrutton* at paragraph 7-025) so may the standard of seaworthiness rise with improved knowledge of the documents required to be prepared prior to a voyage to ensure, so far as reasonably possible, that the vessel is safely navigated. Before the need for passage planning to be adopted by "all ships engaged on international voyages" was recognised (see the fifth recital to the IMO 1999 Guidelines for Voyage Planning) it may have been the case that a prudent owner would not have insisted upon the preparation of an adequate passage plan from berth to berth. However, I am confident that by 2011 the prudent owner would have insisted on such a passage plan before the voyage was commenced. The vessel was, in my judgment, unseaworthy at the beginning of the voyage.

Causation

88. The next question is whether that unseaworthiness was causative of the grounding. It was submitted on behalf of the Cargo Interests that it was because had the master or the second officer appreciated that charted depths outside the fairway could not be relied upon the master would not have attempted to pass buoy 14-1 to port, outside the buoyed fairway. It was submitted on behalf of the Owners that it was not causative for several reasons which, I think, can be summarised as follows. First, the master had reviewed NM 6274(P)/10 prior to sailing and so had cognisance of its contents. Second, a note on the chart reminding the officer navigating the vessel of the warning in NM 6274(P)/10 would not have stopped the master from "choosing in real time to go south of buoy 14-1". Third, the grounding was caused by the poor execution of the manoeuvre to pass buoy 14-1 to port; it was started too late. Fourth, the cause of the grounding was the failure of the hydrographic authorities properly to promulgate information about the shoal upon which the vessel grounded.

89. I have already concluded that the master's decision to leave the buoyed fairway and navigate to the west of buoy 14-1 was negligent. Whether the defective passage plan was causative of that negligence depends upon whether or not the master was in fact cognisant of the notice and of its contents. If he was then the material defect in the passage plan may not have been causative. It was submitted that the master had read NM 6274(P)/10 because the master said that he read it before the voyage to Xiamen. However, he did not state that in terms when making a statement three days after the grounding, though he did make a general reference to considering the "customary nautical publications" and to "active warnings for the area generally concern(ing)

reported depths than what is charted." There are indications in his witness statement that he did not have its contents in mind when leaving Xiamen. First, he referred to being concerned about soundings of 12.9 and 13.3 metres in the vicinity of buoys 3 and 2 at the seaward end of the fairway. If he had had NM 6274(P)/10 in mind he would have known that there was a least depth of 14 metres in the channel. Second, when deciding to leave buoy 14-1 to port he said he had in mind that there was about 30 metres of water. If he had had NM 6274(P)/10 in mind he could not have been confident that there was about 30 metres of water. Third, the chart correction log maintained on the vessel made no reference to NM 6274(P)/10 which suggests that it was not noted by those on board the vessel. The second officer suggested in his supplementary witness statement that this may have been an oversight. But in circumstances where the chart had not been corrected to show a radar beacon on buoy 19 (see paragraph 3 of NM 6274(P)/10) it is more likely than not that the notice to mariners itself had been overlooked. My conclusion is that, whether or not the master had read the notice to mariners before the voyage to Xiamen, its contents were not in his mind when navigating away from Xiamen. Thus it is more likely than not that the defect in the passage plan was causative of the master's decision to leave buoy 14-1 to port.

90. It was submitted that the master would have made the same decision as he in fact did even if the chart or passage plan contained a warning as to charted depths. I am unable to accept this submission. Had there been a warning on the chart about charted depths being unreliable the master would have been, as it seems to me, most unlikely to have decided to navigate beyond the buoyed fairway to the west of buoy 14-1. The master accepted, when cross-examined, that if the area west of buoy 14-1 had been marked as a "no go" area he would not have attempted the manoeuvre that he did. Faced with the decision whether to make a small alteration of helm to port in order to steer to the east side of the fairway and pass buoy 14-1 to starboard (as planned) or to make a substantial alteration of course to starboard to pass buoy 14-1 to port outside of the fairway (as had not been planned) there can, in my judgment, be no doubt that the master would have decided to remain in the fairway. Reliance was placed on the fact that the vessel had been set a little further to the west than intended when passing buoy 15. But even if this was part of the master's thinking at the time (he makes no mention of it in his witness statement) the position remained that a modest alteration of helm to port was required to continue on the vessel's intended track within the fairway. Captain Whyte accepted that a change of no more than 5 degrees was required to bring the vessel back onto the course line.

91. The next point taken on causation was that it was not the decision to leave the fairway which caused the grounding but the manner in which it was executed. It was said to have been executed too late; the 14.8 metre shoal north west of buoy 14-1 ought to have been passed to port. Had that been done the substantial starboard helm action after passing that shoal to starboard would not have been necessary. Further, the starboard helm order was given too late and "without the required positive and deliberate control of turn". Had the master executed his revised plan in either of those ways it was said that it was likely that he would have returned to the fairway by passing the rocks of Jiujie Jiao to starboard and so would not have grounded on the shoal to the west of those rocks. The difficulty with this submission is that the decision to leave the fairway cannot be divorced from the manner in which the master intended to leave the fairway. They were part of the same navigational decision. His

actions led to the vessel failing to return to the fairway before buoy 14 and to his decision to pass the rocks at Jiujie Jiao to port. I do not consider that the chain of causation from the initial decision to leave the fairway to the grounding of the vessel was broken. His initial decision gave rise to the risk that, whilst navigating out of the fairway, the vessel might ground on an uncharted shoal and that is what happened.

92. Finally, reliance was placed on the failure of the hydrographic authorities to advise mariners of the existence of the shoal on which the vessel had grounded. It is true that the hydrographic authorities knew of the shoal (it appeared on the electronic chart as from 13 January 2011) but did not advise users of the paper chart of the shoal until a date after the grounding. Although Captain Hart made enquiries about this and was told that there were restrictions under the Bilateral Agreement between the UK and China as to the information which could be placed on Admiralty charts from Chinese charts and that the information from the Chinese charts was conflicting I am unable to make any findings as to why earlier notice of the shoal was not given. But whilst the fact that the shoal was not marked on the paper chart may well have been a cause of the grounding it does not follow that the defective passage plan and the master's resulting negligence in deciding to navigate outside the buoyed fairway was not also a real and effective cause of the grounding.

Due diligence

93. Article III r.1 of the Hague Rules (which, it is common ground, applied to all of the contracts of carriage) provides as follows:

> "The carrier shall be bound, before and at the beginning of the voyage, to exercise due diligence to –
>
> (a) make the ship seaworthy ……"

94. Article IV r.1 provides as follows:

> "Neither the carrier nor the ship shall be liable for loss or damage arising or resulting from unseaworthiness unless caused by want of due diligence on the part of the carrier to make the ship seaworthy…in accordance with the provisions of paragraph 1 of Article III.
>
> Whenever loss or damage has resulted from unseaworthiness, the burden of proving the exercise of due diligence shall be on the carrier or other person claiming exemption under this Article."

95. The manner in which the obligation in Article III r.1 is to be understood is set out in *Scrutton on Charterparties and Bills of Lading* 23rd.ed at paragraph 14-046 in these terms:

> "The due diligence required is due diligence in the work itself by the carrier and all persons, whether servants or agents or independent contractors whom he employs or engages in the task of making the ship seaworthy; the carrier does not

> therefore discharge the burden of proving that due diligence has been exercised by proof that he engaged competent experts to perform and supervise the ask of making the ship seaworthy. The statute imposes an inescapable personal obligation."

96. In *Papera Traders v Hyundai Merchant Marine (The Eurasian Dream)* [2002] 1 Lloyd's Rep. 719 Cresswell J. explained the duty of due diligence in the same manner.

> "130. The duty of "due diligence" is an "inescapable personal obligation" (Scrutton on Charterparties (20th ed.), p. 429); it is non-delegable. The carrier will therefore be responsible for negligence of those to whom it delegates due diligence. The question is whether unseaworthiness is due to any lack of diligence in those who have been implicated by the carrier in the work of keeping or making the vessel seaworthy. Such persons are the carriers' agents whose diligence or lack of it is attributable to the carrier: *The Muncaster Castle*, [1961] 1 Lloyd's Rep. 57 at p. 82; [1961] A.C. 807 at p. 862 per Lord Radcliffe. See also Viscount Simonds at pp. 70-71; pp. 843-844. This principle is relevant in two respects: (1) the carrier under the bills of lading is liable for the want of due diligence by the owners or managers (*The Fjord Wind*, [1999] 1 Lloyd's Rep. 307 at p. 315 and *Carver on Bills of Lading* (1st ed.), par. 9-125); (2) the carrier is liable for the want of due diligence of the master insofar as the carrier or the owners or managers have delegated to him their duties as to seaworthiness.
>
> 131. The exercise of due diligence is equivalent to the exercise of reasonable care and skill: "Lack of due diligence is negligence; and what is in issue in this case is whether there was an error of judgment that amounted to professional negligence." (*The Amstelslot*, [1963] 2 Lloyd's Rep. 223 at p. 235 per Lord Devlin.) See also: *Scrutton on Charterparties* (20th ed.), p. 429: "The standard imposed by the obligation to exercise due diligence appears to be equivalent to that of the common law duty of care."

97. There are several examples in the authorities of the carrier being held to have failed to exercise due diligence because of failures by the master or chief engineer before the commencement of the voyage.

98. *The Evje* (No.2) [1976] 2 Lloyd's Rep.714 and [1978] 1 Lloyd's Rep.351 concerned a claim for general average arising out a vessel running out of fuel and requiring a tow. The vessel was unseaworthy by reason of a lack of fuel or a lack of the right quality of fuel. It was conceded (by Mr. Staughton QC) that to take insufficient bunkers involves a failure to use diligence. It is clear from the discussion by Donaldson J. at pp.718-720 of unseaworthiness, due diligence and the conduct of the master and chief engineer that negligence by the master or chief engineer in ordering the correct quantity or quality of bunkers before the voyage amounts to a failure by the carrier to

exercise due diligence to make the vessel seaworthy. This was also clear from the judgment of the Court of Appeal who affirmed the decision of Donaldson J. Lord Denning MR referred in terms to there being "a want of due diligence by the master"; see p.353 rhc and p.355 lhc. The negligence included miscalculations of the length of the voyage and the speed of the vessel, and failing to take into account the current.

99. It is unnecessary to refer in any detail to the other cases which illustrate that negligence by the master or chief engineer or other officer before the commencement of a voyage can amount to a failure by the carrier to make the vessel seaworthy. I shall simply list them: *The Friso* [1980] 1 Lloyd's Rep. 469 (failure by master before the voyage to press up three double bottom tanks so that the vessel was unstable and therefore unseaworthy, see pp.475-476); *The Kapitan Sakharov* [2000] 2 Lloyd's Rep.255 (negligence by the master and cargo officer in stowing certain cargo below deck, see pp.266-267); *The Antigoni* [1990] 1 Lloyd's Rep 45 (failure by the chief engineer to carry out crankshaft inspections correctly, see p.50 and on appeal [1991] 1 Lloyd's Rep 209 at p.215; and *The Cape Bonny* [2018] 1 Lloyd's Rep 15 (failure by the chief engineer and the first assistant engineer to carry out proper checks and measurements, see paragraphs 126 and 154).

100. Thus the submission on behalf of the Cargo Interests in the present case was that the negligence of the master and second officer in preparing the passage plan before the commencement of the voyage amounted to a failure by the Owners to exercise due diligence to make the vessel seaworthy. The master and second officer were the servants whom the Owners employed in the task of making the vessel seaworthy by the provision of an appropriate passage plan.

101. I have found that the master and second officer failed to prepare an appropriate passage plan. The question arises whether by the exercise of due diligence the master and second officer could reasonably have prepared an appropriate passage plan. It must follow from my finding that they could have done so. NM 6274(P)/10 was, on the Owners case, on board the vessel. (There was no documentary proof of that, as counsel for the Cargo Interests submitted, but it is unlikely that the Owners system for ensuring that notices to mariners were provided promptly to the vessel broke down on this occasion.) NM 6274(P)/10 contained, as the master accepted, "a clear warning…that if you leave the dredged fairway you may encounter uncharted shoal areas." The purpose of a passage plan was, as the master must have known, to identify areas or sources of danger. It was therefore prudent, for the reasons I have endeavoured to explain earlier in this judgment, that the passage plan, and in particular the chart, should include a warning about the unreliability of charted depths out of the fairway in order to minimise the risk that the officer navigating the vessel might decide, for whatever reason, to navigate outside the buoyed fairway. This was something which the master ought reasonably to have appreciated. He accepted when cross-examined that if he had "given proper thought to the passage planning process he would have ruled out going west of the stony patch as a sensible course." That is a reference to the stony patch west of buoy 14-1. It must follow that the master and second officer could, by the exercise of reasonable care or due diligence, have prepared a passage plan which prudently marked on the chart the required warning.

102. Counsel for the Owners submitted that due diligence was exercised because the Owners' SMS contained appropriate guidance for passage planning and that the auditors of the vessel's practices were competent. This submission was developed in

further written submissions made after the hearing. It was submitted that "the Owners' obligation to exercise due diligence to make the ship seaworthy only concerns things done (by Owners or their servants or agents) in the capacity of carrier and does not concern things done by the crew in some other capacity, including their capacity as navigators." Thus the issue was said to be one of "capacity". The actions of the master and second officer in preparing the passage plan were matters of navigation rather than matters for Owners as carrier.

103. Reliance was placed on a passage in *Voyage Charters* by Cooke and others at 85.100 that "the relevant want of due diligence must be by someone performing the functions undertaken in the capacity of carrier and not in some other capacity." It was submitted that in the present case the master and second officer were acting *qua* master and second officer and not *qua* carrier.

104. The passage in *Voyage Charters* was based upon the decision in *Northern Shipping v Deutsche Seereederei (The Kapitan Sakharov)* [2000] 2 Lloyd's Rep.255. The relevant part of the decision in that case concerned unseaworthiness by reason of the stowage of dangerous cargo on deck but in circumstances where the dangerous cargo had not been identified as such; see p.271 lhc. Auld LJ, after referring to the authorities, concluded (at p.272 rhc):

> "In my view there is no warrant on the facts of those cases or the *rationes* of them for extending a carrier's duty of due diligence as to the structure and stowage of its ship to a physical verification of the declared contents of containers or other packaging in which cargo is shipped unless put on notice to do so."

105. Later (at p.273 lhc) he said:

> "Those responsible for the manufacture, stuffing and shipping of containers are plainly not carrying out any part of the carrier's function for which he should be held responsible."

106. Thus *The Kapitan Sakharov* illustrates that the stuffing of containers is not something to which the duty of the carrier extends unless put on notice to do so, as noted in *Scrutton on Charterparties* at paragraph 14-046. It is in that sense that the comment in *Voyage Charters* is to be understood.

107. It does not seem to me that there is any analogy with the carrier's duty to exercise due diligence to make the vessel seaworthy by the provision of a proper passage plan. The provision of a proper passage plan is necessary to ensure, so far as reasonably possible, that the vessel will be safely navigated. The safe navigation of the vessel is necessary to enable the carrier to carry the cargo safely from the loading port to the discharge port. Of course, if the vessel is seaworthy and the cargo is lost by reason of negligent navigation the carrier is exempted from liability by Article IV r.2(a). Further, whereas in *The Kapitan Sakharov* the carrier, its servant or agent could not, by the exercise of reasonable care and skill, have identified the dangerous cargo, the master and second officer in the present case could, by the exercise of reasonable care and skill, have prepared a proper passage plan.

108. Reliance was again placed on *The Torepo* and *The Jia Li Hai*. It was said that neither case supported the Cargo Interests' case on due diligence. That may be so but, as I have already commented, neither can be said to support the Owners' case either.

109. Counsel for the Owners raised a hypothetical case of a master who "as part of the passage planning process, misreads the depth figures on the chart in relation to a sand bar at the entry/exit to the port (or the height of tide in the tide tables) and therefore sets sail when there is insufficient water" and subsequently grounds on the sand bar. He submitted that, assuming that the vessel had all the correct nautical publications and proper instructions for passage planning, the ship was seaworthy and the shipowner had used all reasonable care to ensure that the vessel was seaworthy. Hypothetical examples are often dangerous because the assumed facts are not clear. But if the passage plan, by reason of the master's mistake, contained an inaccurate assessment of the under keel clearance then the plan would be defective, no prudent owner would have permitted the vessel to set out to sea without the defect being corrected and due diligence would not have been exercised in making the vessel seaworthy.

110. Lastly, counsel relied upon the ISM Code, an international standard for the safe operation of ships which requires an owner to have a safety management system (SMS), and submitted that it was "the well-established industry view that an owner/carrier has complied with its responsibilities if it establishes, implements and audits the SMS". After Mr. Chauffeteau's witness statement dated 26 January 2019 had been considered Captain Hart advanced no criticism of the Owners' SMS or auditing practices.

111. Counsel for the Owners relied in this context upon *The England* [1973] 1 Lloyd's Rep. 373, which was a limitation case, and suggested that the approach taken in *The England* was applicable by analogy in the Hague Rules context. The use which counsel seeks to make of *The England* is unjustified. The issue in *The England* was whether the owner could establish that a collision had occurred without his actual fault or privity for the purposes of section 503 of the Merchant Shipping Act 1894. That issue raised for decision the question whether an owner could leave all questions of navigation, including the question of what charts and regulations were on board, to the master, or whether the owner himself had a duty to take all reasonable steps to ensure that the master had at his disposal all necessary publications. Sir Gordon Willmer said that what the owner did in that case "might have passed muster 20 years ago" but that it was no longer permissible for owners to leave everything to the unassisted discretion of the master. *The England* established, as was noted in by Cresswell J. in *The Eurasian Dream* at paragraph 133, that an owner has his own duty which must be discharged if he wishes to have the benefit of the right of limitation under the Merchant Shipping Act 1894. Failure to discharge that duty will naturally prevent the owner from being able to prove due diligence pursuant to Article III r.1 of the Hague Rules. But discharge of that duty will not enable the owner to prove due diligence under Article III r.1 if the servants or agents upon whom he relies to make the vessel seaworthy fail to act with reasonable care or due diligence. That is because the duty is non-delegable.

112. In *The Cape Bonny* [2018] 1 Lloyd's Rep. 356 at paragraph 30 I noted that:

> "It is well recognised and has been since 1984 (following developments in the law relating to the limitation of shipowners' liabilities between 1960 and 1984) that shipowners themselves owe a duty to ensure the safe and efficient management of their vessels; see, for example, *The Marion* [1984] 2 Lloyd's Reports 1 at p.4 per Lord Brandon. That duty cannot be discharged by relying upon the master or chief engineer to exercise their own duty to ensure the safe and efficient management of their vessel. The ISM Code, pursuant to which all shipowners must have an SMS, reflects the shipowners' own duty."

113. An owner cannot expect to secure a finding that due diligence has been exercised if its SMS is inadequate. Indeed, as stated in *Maritime Law* 4th.ed. by Baatz at p.352, (a passage relied upon by counsel) "a well-documented Safety Management System would be of considerable help in establishing the exercise of due diligence and, as such, should be considered an important tool for defending claims based on unseaworthiness." But it has long been recognised, as the above quotations from *Scrutton* and *The Eurasian Dream* make clear, that in order to comply with Article III r.1 it is not sufficient that the owner has itself exercised due diligence to make the ship seaworthy. It must be shown that those servants or agents relied upon by the owner to make the ship seaworthy before and at the beginning of the voyage have exercised due diligence. That is because the duty is non-delegable. I am therefore unable to accept counsel's submission that the Cargo Interests' case "would cut across and undermine this established regulatory regime and industry practice."

114. For these reasons the Owners' claim must fail. The Cargo Interests have established causative unseaworthiness and the Owners have failed to establish the exercise of due diligence to make the vessel seaworthy. That is the consequence of applying to the facts of this case established propositions of law, namely, the traditional test of seaworthiness, the principle that documentation is an aspect of seaworthiness and the non-delegable nature of the duty to exercise due diligence.

115. In the light of that conclusion it is unnecessary to deal with the other respects in which it was alleged that the vessel was unseaworthy. Since those allegations were the subject of evidence and submissions I shall express my conclusion shortly.

<u>NM 6274(P)/10 not on board; working chart not corrected</u>

116. I have already noted that it is improbable that NM 6274)P)/10 was not on board the vessel. It is true that there is no documentary or contemporary evidence that it was on board but the issue was initially not pleaded and was raised for the first time by Captain Hart in his report in September 2018. That is relevant when considering what inferences can be drawn from the absence of any documentary reference to it being on board. I have also noted that account does not appear to have been taken of its terms. However, this allegation (in terms of causative fault) adds nothing to the allegation that there was an inadequate passage plan.

<u>Working chart not updated to show NM 1691 corrections</u>

117. These are the corrections to note the 4.8 metre and 1.2 metre soundings. They were marked on the chart when it was photocopied and photographed on the day of the grounding. The Cargo Interests have suggested they were only added after the grounding. The court is invited to draw that inference on the grounds that if they had been marked on the chart the master would not have attempted to pass buoy 14-1 to port and would have kept away from the newly marked shoal of 1.2 metres. There is some force in this submission but I am not persuaded that it would be appropriate to draw the suggested inference. On the contrary it is more likely than not the photocopies and photographs show the condition of the chart at the time of grounding. There was no unseaworthiness in this regard.

No official electronic charts on board showing the shoal on which the vessel grounded

118. There was no SOLAS requirement for the vessel to carry Admiralty electronic charts in 2011. She complied with SOLAS by carrying Admiralty paper charts. The argument advanced by the Cargo Interests, on the basis of the expert evidence of Captain Hart, was that the bridge lay out, with the ECDIS visible to the navigator, was so seductive that the navigator would inevitably navigate by reference to the electronic chart. That being so the electronic chart installed on the ECDIS ought to have been the official and updated Admiralty electronic chart. If the Owners had provided such chart the master would have known of the existence of the shoal on which the vessel grounded and the grounding would not have occurred.

119. There is a logic to Captain Hart's view but it was not accepted by Captain Whyte who pointed out that in 2011 there was limited coverage provided by Admiralty electronic charts. In this context Captain Hart's opinion is not supported by practical experience. He never sailed as master with electronic charts. In circumstances where there was no regulatory requirement in 2011 for the vessel to carry official electronic charts, where the coverage provided by them in 2011 was limited and where masters and navigating officers were instructed as to the attributes and limitations of the electronic charting system I am unable to accept that in 2011 the vessel, before departing Xiamen, was unseaworthy because she did not carry the appropriate electronic chart.

120. It is possible that, as indicated by certain passages of the master's evidence, that he was placing exclusive reliance on the ECDIS during the departure from Xiamen rather than on the paper chart but if he did so that was negligent navigation for which the Owners are not liable.

Bridge management

121. Good bridge management requires a ready ability of those on the bridge to work together as a team. It was suggested that this was lacking on the bridge of the vessel because the master did not explain to the second officer why he was departing from the charted course and the second officer did not question the master as to why he was doing so. However, whilst it is clear that the master did not explain what he was doing and that the second officer not only did not ask him but also thought, mistakenly, that it was because of vessels ahead, there is evidence of communication between them. The second officer told him that the pilot was off and that there were one or more vessels coming. There was a discussion about their speed and other discussions were inaudible. When the vessel was navigating outside the buoyed fairway the second officer was informing Xiamen VTS what the vessel was doing. I therefore do not

consider that it can properly be inferred that the master and second officer suffered from a disabling lack of appreciation of the need to communicate and act as a team.

Incompetence of the master

122. The Cargo Interests invited the court to infer from the master's negligence (in failing to ensure a proper passage plan, in failing to navigate by reference to the paper chart, in deciding to navigate outside the buoyed fairway and in failing to advise the second officer why he was doing so) that he was incompetent. I am not satisfied that this would be a proper inference to draw. Indeed there is much evidence that he was a competent master. He had 30 years' experience at sea, including 16 years with the Owners and 8 years in command of containerships. He had been selected by the Owners to take command of a newly built containership. It is improbable that he was incompetent. The manner in which he responded to questions in the witness box did not suggest that he was incompetent.

Fatigue

123. The Cargo Interests submitted that at the commencement of the voyage the master was fatigued and that that impaired his decision making during the passage from Xiamen. It is well-recognised that fatigue can have that effect and that, for that reason, hours of rest must be properly recorded and arrangements made to ensure that the master and crew are properly rested. There was evidence that there were problems with the Owners' system of recording hours of rest and that the Owners were aware that that the nature of a master's work meant that there would be very busy periods when the master would not get the required numbers of hours' rest. However, I was not satisfied that this master was, at the commencement of the voyage from Xiamen, fatigued so as to impair his decision making. In the seven days up to 16 May 2011 the master had had about 80 hours of rest, though it is to be noted that on 15 May a feeder vessel collided with the vessel at Yangshan and on 16 May the vessel had to alter course to avoid another vessel within the channel. On 17 May, after arriving at Xiamen at 0340 and dealing with formalities for a further two hours he slept from about 0600 to 1030. He then dealt with correspondence and other matters. In the afternoon he went ashore with the chief engineer, did some shopping and had a meal and beer. He returned on board at about 1900 and rested in bed. He went to the bridge at about midnight. The vessel left the berth at 0133 on 18 May.

124. The master (who was aged 49 at the time) was, I suspect, tired but I doubt that he was so tired that it materially affected his decision making. His decision to navigate outside the fairway south of buoy 14-1 was a poor (and negligent) decision but, on the balance of probabilities, it was caused by the poor (and negligent) passage plan which failed to alert him during the voyage to the danger of relying upon the charted soundings outside the buoyed fairway. Had the vessel carried a proper passage plan which alerted him to that danger it is unlikely that he would have thought that he had a safe depth of some 30 metres in which to navigate outside the buoyed fairway.

Deviation

125. This is another matter which it is unnecessary to determine. But since it was argued I shall express my conclusion shortly. It was submitted that leaving the fairway was a

deliberate departure from the normal, and hence the contractual, route, with the result that the contractual exceptions do not apply. I am unable to accept that submission.

126. In *Rio Tinto Company v The Seed Shipping Company* (1926) 24 Lloyd's List Law Reports 316 Roche J. said at p.320 rhc:

> "A mere departure or failure to follow the contract voyage or route is not necessarily a deviation, or every stranding which occurred in the course of a voyage would be a deviation, because the voyage contracted for, I imagine, is in no case one which essentially involves the necessity of stranding. It is a change of voyage, a radical breach of the contract, that is required to, and essentially does, constitute a deviation."

127. In that case, on Christmas Day, after the master had enjoyed a dinner of goose and plum pudding, he unfortunately brought his vessel into contact with Troon Rock, causing the loss of ship and cargo. The master had been informed by the pilot to proceed on a SSW course but, by mistake, he proceeded on a SSE course, supposing that the pilot had told him that the course was SSE. Roche J. said:

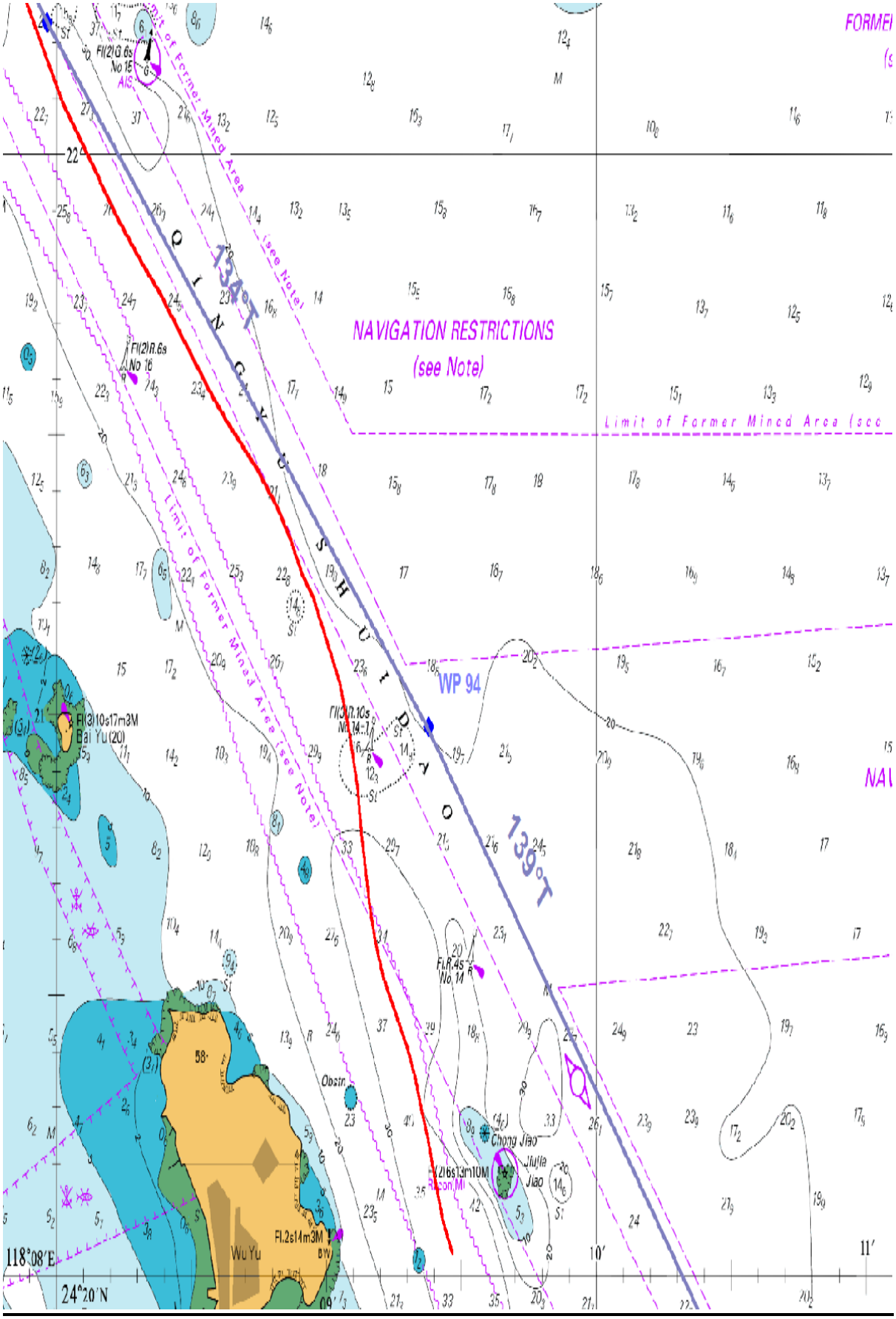
> "…the master never intended to leave the route of the voyage……What he did was to make a mistake as to the compass course which was necessary to take him from the *terminus a quo* to the *terminus ad quem*. To use an analogy …. He did not adopt another road instead of the road that he had agreed to take, but he got himself into the ditch at the side of the road which he was intending to follow. He was not on another route; he was on the existing route, although he was out of the proper part of the route which he ought to have followed."

128. In the present case there was no radical change of voyage. Rather, the master intended to depart from the fairway for a short distance before returning to the fairway. He was negligent in his belief that that departure could be safely accomplished. He was admittedly "out of the proper part of the route which he ought to have followed" but I do not consider that that can fairly be called a deviation in the required sense. Rather, it was negligent navigation; see *Bills of Lading* 2nd.ed.by Aikens and others at paragraph 10.292.

Conclusion

129. The vessel was unseaworthy before and at the beginning of the voyage from Xiamen because it carried a defective passage plan. That defective passage plan was causative of the grounding of the vessel. Due diligence to make the vessel seaworthy was not exercised by the Owners because the master and second officer failed to exercise reasonable skill and care when preparing the passage plan. It follows that the grounding of the vessel was caused by the actionable fault of the Owners and so the Cargo Interests are not liable to contribute in general average.

CHART EXTRACT


NAVIGATION RESTRICTIONS
(see Note)
Limit of Former Mined Area (see Note)
WP 94
134°T
136°T
Fl(2)G.6s
No 15
AIS
Fl(2)R.6s
No 16
Fl(3)10s17m3M
Bai Yu (20)
Fl.R.4s
No 14
Obstn
Chang Jiao
Jiulie Jiao
Fl.2s14m3M
Wu Yu
118°08'E
24°20'N