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Cases No: AD 2018 000124,149 & 150

IN THE HIGH COURT OF JUSTICE
QUEEN'S BENCH DIVISION
ADMIRALTY COURT

Royal Courts of Justice
Strand, London, WC2A 2LL

Date: 05/10/2020

Before :
MR. JUSTICE TEARE

(sitting with Captain Nigel Hope and Commodore William Walworth, Elder Brethren of Trinity House, as Nautical Assessors)

- -

Between :

THE OWNERS OF THE VESSEL SAKIZAYA KALON

Claimant

- and –

THE OWNERS OF THE VESSEL PANAMAX ALEXANDER

Defendant

And Between:

THE OWNERS OF THE VESSEL OSIOS DAVID

Claimant

-and-

THE OWNERS OF THE VESSEL PANAMAX ALEXANDER

Defendant

And Between:

THE OWNERS OF THE VESSEL OSIOS DAVID

Claimant

-and-

THE OWNERS OF THE VESSEL SAKIZAYA KALON

Defendant

Collisions in the Suez Canal, 15 July 2018

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James Turner QC (instructed by **Reed Smith LLP**) for the **Owners of OSIOS DAVID**
Chirag Karia QC (instructed by **HFW LLP**) for the **Owners of SAKIZAYA KALON**
Robert Thomas QC and Ruth Hosking (instructed by **Ince Gordon Dadds LLP)** for the **Owners of PANAMAX ALEXANDER**

Hearing dates: July 16 and 20-23, 2020, with written submissions on the advice of the Assessors completed on 25 September 2020

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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

"Covid-19 Protocol: This judgment will be handed down by the judge remotely by circulation to the parties' representatives by email and release to Bailii. The date and time for hand-down will be deemed 10:00 AM Monday 5th October 2020"

Mr. Justice Teare:

Introduction

1. On the evening of 15 July 2018 a southbound convoy of eight vessels was proceeding through the southern section of the Suez Canal. At about 1750 the vessel at the head of the convoy, AENEAS, a container vessel, had an engine problem and, by about 1820, was anchored. Thereafter, the other vessels astern of her either took steps to moor or prepared to moor. Not all were successful. At about 1948 the eighth (and last) vessel, PANAMAX ALEXANDER, a laden bulk carrier, collided with the seventh vessel in the convoy, SAKIZAYA KALON, another laden bulk carrier, which was at anchor. (There is a dispute as to whether she was also moored to the bank of the canal.) After PANAMAX ALEXANDER had collided with SAKIZAYA KALON, those two vessels, at about 2002, collided with OSIOS DAVID, another laden bulk carrier which was anchored and moored. The three vessels ended up in such positions that they formed, remarkably, a triangle across the Canal, with SAKIZAYA KALON heading towards the east bank, PANAMAX ALEXANDER heading towards the west bank and OSIOS DAVID heading down the Canal. The bows of PANAMAX ALEXANDER and OSIOS DAVID were in contact with each other, the stern of SAKIZAYA KALON was in contact with the stern of OSIOS DAVID and the bows of SAKIZAYA KALON were in contact with the stern of PANAMAX ALEXANDER. There was evidence of further contact between the vessels at 2013-2014 (though there is a dispute as to whether PANAMAX ALEXANDER struck OSIOS DAVID for a second time). By about 2015 the three vessels had separated. But, again remarkably, PANAMAX ALEXANDER and SAKIZAYA KALON ended up alongside each other on reciprocal headings. There was further contact between them at about 2018.

2. The collisions between these three vessels have generated claims totalling some US$18 million. Three actions claiming damages were commenced in the Admiralty Court. The Owners of OSIOS DAVID sued the Owners of PANAMAX ALEXANDER in one action and sued the Owners of SAKIZAYA KALON in a second action. In the third action the Owners of SAKIZAYA KALON sued the owners of PANAMAX ALEXANDER. PANAMAX ALEXANDER has counterclaims against the other vessels. The three actions were heard together. None of the vessels accept any liability for the collisions. OSIOS DAVID and SAKIZAYA KALON say that the collisions were caused by the fault of PANAMAX ALEXANDER. PANAMAX ALEXANDER says that the collisions were caused by both OSIOS DAVID and SAKIZAYYA KALON.

3. In circumstances where OSIOS DAVID had been at anchor and moored to the west bank of the Canal for at least 18 minutes before the first collision and where SAKIZAYA KALON had been held by her anchors off the east bank of the Canal for about the same period there may well be those who wonder why it is not obvious that PANAMAX ALEXANDER, the final vessel in the convoy, was not wholly to blame for the collisions, having collided first with SAKIZAYA KALON and second with OSIOS DAVID. But the admitted duty of vessels in the convoy to inform those astern of their intention to moor, the presence of submarine cables which impeded the use of anchors to assist with mooring and the challenge of mooring in a following current enabled PANAMAX ALEXANDER to submit that that superficial view was wrong.

4. Each vessel carried a Voyage Data Recorder. In accordance with what is now standard practice in collision cases in this court, buttressed by appropriate rule changes to CPR 61 and PD 61 (see *The Alexandra 1 and Ever Smart* [2017] 1 Lloyd's Reports 666 at

paragraph 2), the parties were able, with the assistance of appropriate experts who interrogated the VDRs, to agree a schedule showing the heading, course and speed of the three vessels. That schedule was of considerable assistance to the court. A "reconstruction animation video" of the VDR data produced by Collins Marine Consultants using MADAS software (Marine Accident Data Analysis Suite) shows the progress of the three vessels through the Canal. MADAS was developed under a project jointly funded by the UK Marine Accident Investigation Branch and the US National Transportation Safety Board to create a methodology for the analysis and visualisation of time dependent VDR data for use in accident investigations. MADAS can incorporate data from other sources including AIS (Automatic Identification System) and ECDIS (Electronic Chart Display and Information System). It is subject to error (for example small timing and positional errors and errors resulting from inherent GPS error) as explained in a report prepared by Collins Marine Consultants for the court. But the video was nevertheless of considerable assistance in understanding the progress of each vessel through the Canal leading up to the collisions. For example, it shows where each vessel was in relation to the submarine cables lying across the canal (which impeded the freedom of a vessel to anchor) and at the same time displays the underlying navigational data of each vessel (course, speed and so forth) on screen. I had not previously been persuaded that a "reconstruction animation video", as opposed to a static plot of the vessels' navigation, served any real purpose; see *The Alexandra 1 and Ever Smart* at paragraph 5. However, in this case where it was necessary to know where each of the vessels was in relation to the submarine cables at different times, the video, which the viewer could pause and restart at will, was of considerable assistance. None of the parties suggested that the margin of error to which MADAS is subject was such as to make it inappropriate to rely upon it for the purposes of the resolving the issues in this case, save that counsel for PA suggested, perhaps with justification, that it could not be relied upon to show the nature and extent of the contact between the vessels.

5. The VDRs also recorded what was said and heard on the bridge of each vessel. These audio records are now commonplace in collision actions but an agreed transcript and translation often requires very considerable work by the parties. That was certainly so in the present case where the languages involved included Arabic, Mandarin, Tagalog and English and the audio records for over two hours from 1750 (when AENEAS had her engine problem) until 2035 (about 20 minutes after the last of the collisions) had to be listened to with great care. The importance of the audio record was illustrated in the present case by the considerable reliance placed on it by counsel, not only to show what information was given (or not given) by one vessel to another but also to show when certain actions not otherwise recorded were taken, for example, attempts to moor or the dropping of an anchor. The audio record can also enable inferences to be drawn as to the quality of a vessel's look out.

6. The shape of a collision action in the Admiralty Court is now very different from what it was before the advent of VDRs. In the past a trial was required to establish the navigation of each vessel. There was often little common ground save that there had been a collision. The reliability of the evidence of the master or officer of the watch had to be assessed. Findings were based on such evidence as proved to be reliable in the light of each vessel's contemporaneous documents, in particular, the working chart, the deck and engine logs and the bridge and engine room bell books. Sometimes the veracity of those contemporaneous documents was challenged. The presence of an engine logger or a course recorder was often of considerable help though the latter

required interpretation by experts. The probabilities had to be assessed in the light of all the evidence. Each side prepared (usually very different) plots of how the vessels reached the collision position. This has all been changed by the advent of VDRs. As this case illustrates the parties arrive at trial with the navigation of the vessels agreed in very considerable detail. Whereas in the past the value of a plot was generally regarded as showing what could not have happened rather than what did happen (see *The Bow Spring v Manzanillo* [2004] EWCA Civ 1007 at paragraph 32 per Clarke LJ), a plot (or in this case a reconstruction animation video) can now portray the navigation of each vessel on the basis of reliable and detailed evidence, namely, the contemporaneous digital record contained in the VDRs. Whilst there still is a margin of error the detail of the recorded evidence on which such a plot is based is such that there is now, typically, no need for a trial to establish the navigation of each vessel leading up to the collision. What remains to be decided at trial are questions of fault (whether a vessel failed to comply with one or more of the Collision Regulations or the requirements of good seamanship) and questions of apportionment of liability (which requires assessment of the causative potency of a vessel's fault and the degree of blameworthiness of such fault; see *The Nordlake and Seaeagle* [2016] 1 Lloyd's Report 656 at paragraphs 148-151). Thus the trial of a typical collision action (if it has not been settled once the navigation of each vessel has been agreed) ought now to be shorter than what it was. Perhaps it is, but the wealth of material contained in the VDR audio record provides much scope for detailed submissions (and cross-examination) as to why a vessel was navigated as she was, which submissions can be relevant to, but not determinative of, questions of fault and can also be relevant to the degree of blameworthiness. In the present case counsel's closing written submissions totalled some 176 pages.

7. The trial in this case, I should add, was conducted remotely as a result of the Covid 19 Pandemic with the Judge, Assessors, counsel and solicitors in their homes. Documents were in electronic format with hard copies of certain documents also available. I am grateful to the parties, counsel and solicitors for making a remote hearing possible and for ensuring that the trial (during which oral evidence was given by the masters of the three vessels) was completed, as planned, in four and a half days.

The three vessels

8. OSIOS DAVID ("OD") is a 31,538 grt bulk carrier built in 2012, 190 metres in length overall with a beam of 32.26 metres. She is of standard design with her bridge and engine room aft and 5 cargo holds forward of the accommodation. She is powered by a Wartsila engine driving a single, fixed pitch, right-handed propeller with a maximum output of 11921 BHP at 116 rpm. Her full sea speed is 15.5 knots. She is fitted with a full range of modern navigational equipment including radar with ARPA (Automatic Radar Plotting Aid) facilities and ECDIS interfaced with AIS. At the material time she was laden with 53,630 mt of fertiliser in bulk with a maximum draft of 13 metres. She was in the course of a voyage from Lithuania to India.

9. PANAMAX ALEXANDER ("PA") is a 38,928 grt bulk carrier built in 2001, 225 metres in length with a beam of 32.20 metres. She is of standard design with her bridge and engine room aft and 7 cargo holds forward of the accommodation. She is powered by a Mitsui engine driving a single, fixed pitch, right-handed propeller developing 8,826 KW at 94 rpm. Her full sea speed is 10.5 knots (though that might be at manoeuvring full ahead). She is fitted with a full range of modern navigational equipment including ARPA, ECDIS and AIS. At the material time she was laden with

a 63,000 mt of feed barley with a maximum draft of 13 metres. She was in the course of a voyage from Latvia to Iran.

10. SAKIZAYA KALON ("SK") is a 44,425 grt bulk carrier, 229 metres in length and 32.26 metres in beam. She is of standard design with her bridge and engine room aft and 7 cargo holds forward of the accommodation. She is powered by a MAN B&W engine driving a single, fixed pitch, right-handed propeller developing 9,680 KW at 89 rpm. Her full sea speed is 14.5 knots. She also has ARPA and ECDIS with the ability to display AIS data. At the material time she was laden with 61,650 of barley with a maximum draft of 12.32 metres. She was in the course of a voyage from Russia to Saudi Arabia.

11. I was informed by counsel (as the above particulars suggest) that on each vessel the AIS data of other vessels in the Canal could be displayed on the vessel's ECDIS. The master of PA accepted when cross-examined that this was so. AIS can be used to enhance safe navigation but does not replace an alert and systematic visual and radar lookout as the primary instrument for safe navigation; see *The Alexander I and Ever Smart* [2017] 1 Lloyd's Reports 666 at paragraph 105 and *The Hakki Deval* [2006] EWHC 2809 at paragraph 24 per David Steel J. In the present case the AIS data of vessels in the convoy, in particular, their speed following the engine failure on AENEAS, informed other vessels in the convoy whether they were slowing or were stopped. In that way AIS was capable, in this case, of providing real assistance to safe navigation. There was no suggestion that the AIS data was not reliable. The AIS data was displayed in another animation video from which stills at 15 minute intervals were prepared.

12. It is to be noted that all three vessels used electronic charts, though at least two (SK and PA) used paper charts as a back-up. Electronic charts were compulsory from 2016; see *Alize 1954 and CMA CMG SA v Allianz and others* [2017] EWHC 481 (Admlty) at paragraph 3. Screenshots from the ECDIS display on OD were in evidence and have been used by me in this judgment to illustrate the positions of the vessels before the first collision, in the lead up to the later collisions and after the final collision.

The three masters

13. Each vessel's master give evidence. They did so by video link from South America, the South Atlantic and Greece. Two of the masters gave evidence from the master's cabin on their current ship, one during a voyage (probably the first occasion on which evidence has been given to the Admiralty Court from the high seas). When so much is now reliably recorded by VDRs it may be asked why oral evidence is necessary, for the court's findings of fact will be determined by the information extracted from the VDRs and not by the recollection of the masters two years later. However, when allegations of serious navigational fault are made it is only fair that the master, against whom such allegations are made, has an opportunity to respond to them in open court.

14. A Suez Canal pilot advised each of the masters. The pilots spoke amongst themselves by vhf in Arabic. There is no objection to the use of vhf in pilotage waters provided that its use does not interfere with the proper navigation of the vessels; see *The Sanwa and Choyang Star* [1998] 1 Lloyd's Reports 283 at p.295 lhc per Clarke J., a case which also concerned the Suez Canal, albeit the approaches thereto. (See also, more generally with regard to the use of vhf, *The Mineral Dampier v Hanjun Madras* [2001] 2 Lloyd's

Reports 419 at paragraphs 36-40 per Lord Phillips.) None of the masters understood Arabic and it is, I think, fair to say that none of the masters particularly interrogated the pilot as to what he learnt from the other pilots, though some questions were asked immediately after AENEAS' breakdown and in the immediate run up to the collisions. Of course, each master remained responsible for the navigation of his vessel and was able to observe the progress of the other vessels by radar, ECDIS and the AIS facility and so to navigate his vessel in accordance with the Collision Regulations.

15. The master of OD, Lemuel Sacro of the Philippines, gave evidence by video link from the cabin of his current vessel which was in port in Chile. He had been provided with both electronic and hard copies of the trial documents. Although counsel for PA suggested that his evidence was confused and unhelpful, I formed the view that he gave his evidence with honesty, clarity and some firmness. It may be that his recollection on occasion differed from the contemporaneous record but that was inevitable and certainly did not suggest that he was not seeking to tell the truth as he recollected it. It was suggested by counsel for PA that his evidence that there had been an order to stop issued by the Suez Canal Authorities (when there had not been such an order) suggested that his evidence needed to be treated with considerable caution. The master referred to the order in his supplementary statement dated February 2020 and in his oral evidence. He did not do so in his main statement taken in August 2018. It seems to me likely that he had persuaded himself that there had been such an order and was not seeking to advance an account of events which he knew to be untrue. If so then he was not the only one to persuade himself that there had been such an order for the owners of PA, no doubt on the basis of someone's evidence, expressly pleaded that there had been such an order. Significantly (in my judgment) the master accepted several matters put to him as to the conduct expected of a prudent master and as to assumptions made by him when navigating the Canal. That suggested to me that he was being candid with the court.

16. The master of SK, Feng Jiwu of the People's Republic of China, gave evidence from the cabin of his current vessel which was in the South Atlantic on a voyage to Brazil. Arrangements had been made for him to have electronic copies of the trial documents but it was not possible to get hard copies to him. For most of his evidence he needed the services of an interpreter. It was, however, apparent that he had no real recollection of the detail of the events of 15 July 2018. That is perhaps unsurprising. However, when presented with conflicts between his written statements and what in fact happened he was, it seemed to me, prepared to say whatever he could to explain the discrepancy, regardless of whether it was the truth. Indeed the transcript of a conversation between the master and the pilot of SK after the collisions on 15 July 2018 strongly suggested that the master was prepared to put in his report to owners what the pilot told him to say. That suggested that even on the day of the collision he had little knowledge himself of the events leading up to the collisions.

17. The master of PA, Albert Secusana of the Philippines, gave evidence from a hotel in Athens. He had with him electronic and hard copies of the trial documents. He had a clear view that on 15 July 2018 he had monitored the vessels ahead of PA by radar and ECDIS and had kept a safe distance astern of SK but that the two vessels ahead, OD and SK created a dangerous situation by anchoring and blocking the Canal without advising PA of their intentions. When cross-examined he appeared keen not to depart from his written statement (which he maintained he had prepared himself without the

assistance of lawyers) and was reluctant to accept what was clear from the VDR audio record. He had difficulty in answering questions about what good seamanship required when navigating the Suez Canal in a convoy, particularly when the answers to such questions threatened to paint his navigation on 15 July 2018 in a less than good light. I gained the impression that he was doing his best to defend his navigation of his vessel rather than to answer the questions put to him with candour and honesty.

The location of the collisions

18. The Suez Canal runs from Port Said in the north to the Gulf of Suez in the south. After passing through Great Bitter Lake, the traffic separation scheme narrows to a single narrow channel in Little Bitter Lake. From there the final land-locked section runs from about KM 130 to Port Taufiq, south of KM 156. From KM 130 to about KM 145, the Canal runs almost north-south, following about 178°. It then bends slightly to port to head about 170° before curving back to starboard from about KM 155. By the time it passes Port Taufiq Signal Tower the channel is heading about 225°.

19. With the exception of the slight bend at KM 145 to KM 147, where it widens slightly, the dredged channel is about a cable wide. It is marked by lit buoys and KM markers.

20. There are submarine cables and pipelines in the Canal between KM 136 and 137, between KM 142 and 143 and between KM 149 and 151. In those areas anchoring was not possible. But anchoring was possible in the stretch from KM 143 to 149 and after KM 150.5.

21. The collisions occurred between KM 151 and KM 153.

Environmental conditions

22. It was dark but there was good to moderate visibility. No particular issue arose with regard to the lights exhibited by the vessels. There was a wind from the northerly quadrant about force 4 and there was a strong south going current of 2-3 knots. The current was not unusual. The Suez Canal Rules at article 84 state that the average peak current was about 2.2 knots and that in Spring tides the current may reach 4 knots. Low water was at about 1900 on 15 July 2018 and so the current was ebbing strongly at the time of the collisions. An analysis of the current derived from deducting the LOG speed from the speed over the ground of the vessels suggested a current of about 2.7 knots. Counsel for PA referred to a current of 3.5 knots although in PA's Preliminary Act the current was initially said to be 2 knots and, by amendment, 3 knots. Whilst there were occasions when the analysis suggested a current speed of 3.5 knots there may well have been particular reasons for that as suggested in Appendix 2 to the closing submissions of counsel for OD. I find that the current was probably 2-3 knots, and probably nearer to 3 knots than to 2 knots. The existence of this following current meant that mooring a southbound vessel on either side of the canal was challenging, but not unusually so.

Tugs

23. Tugs are available in the Suez Canal. However, their station was at the southern end of the Canal, some 7.5-8 kms. from KM 152. The evidence showed that after AENEAS suffered her engine failure tugs attended her and the vessels at the head of the convoy.

At 1903 and 1911 Port Control advised a tug which had requested a replacement tug that there were no other tugs available.

Local rules of navigation

24. It was common ground that the navigation of the vessels was governed not only by the International Collision Regulations but also by Rules of Navigation issued by the Suez Canal Authority. The most relevant of the International Collision Regulations were Rule 5 (lookout), Rule 6 (safe speed), Rule 7 (risk of collision) and Rule 8 (action to avoid collision). It was not suggested that there was any conflict between the international regulations and the local rules.

25. It is to be noted that there was no local rule governing what was to happen when a vessel in a convoy proceeding through the Canal experienced an engine failure and had to anchor. However, the requirement for vessels in the convoy to carry a mooring boat (article 20) and the presence of bollards every 75 metres on the east bank and every 125 metres on the west bank indicated that the Suez Canal Authority must have considered that there would be occasions when vessels were expected to moor. Article 46 of the Rules issued by the Suez Canal Authority provided that when a vessel was "stopped in the Canal" her engines should always be ready for use. Article 65 provided that masters must avoid anchoring in the Canal "except in case of absolute necessity".

26. Article 48 concerned vessels "proceeding to the Canal" and so it is not obvious that it applied to vessels proceeding through the Canal. I was referred to article 48(6) which provided that as soon as a vessel is "made fast" she must be ready to slack down rope or cut them if necessary and the engines must be ready to start. Whether article 48(6) applies to the circumstances of this case probably does not matter because article 46 plainly does apply and requires a vessel's engines to be ready for use when the vessel is stopped in the Canal.

27. I was also referred to article 48(4) which provided that "all vessels must stop whenever the passage ahead is not clear". However, this does not appear to apply to vessels proceeding though the Canal, as submitted by counsel for PA. Although it was relied upon by counsel for SK no detailed submissions were made about its meaning or scope. Since it does not appear to apply to vessels proceeding through the Canal I shall not take it into account.

The navigation of the vessels

28. The navigation of the three vessels must be recounted for a period of 2 hours before the collisions. That is not usually necessary. The events relevant to a collision at sea typically occur much closer in time to the collision than that. However, it is necessary in this case to recount the navigation of the vessels over a longer period because the problem affecting AENEAS occurred 2 hours before the collisions and that event set the scene for what then followed. Moreover, Counsel placed much reliance upon the early navigation and so it is necessary to recount it. I shall deal first with AENEAS and the other vessels in the convoy before turning to the navigation of the three vessels which later collided.

AENEAS and the other vessels

29. Evidence as to these vessels was only available from the VDR audio logs and from ECDIS/AIS data recorded in the VDRs. There was no evidence from the vessels themselves.

30. At about 1750 the pilot on board AENEAS, a container ship of 293 metres in length, announced (as recorded on OD's VDR) that she had engine trouble: *"I have trouble with the engines, please send a tugboat to me at your maximum speed, maximum speed please"*. At the time AENEAS was passing KM 155 and was approximately 9 miles ahead of OD (which was proceeding past KM 140). At about 1754 those on the bridge of SK learnt that *"some ship has a problem"*. At about 1757 those on the bridge of PA learnt that the AENEAS had *"no engines"*.

31. At about 1800 the distance between PA and SK was over 2.5 nautical miles and the distance between SK and OD also over 2.5 nautical miles.

32. The position with the other vessels was as follows. The distance between OD and IWAMI (the fifth vessel in the convoy and a bulk carrier of 147 metres in length) was about 2.2 miles, the distance between IWAMI and MARY LISA V (the fourth vessel in the convoy and a bulk carrier of 190 metres in length) was about 1.1 miles, the distance between MARY LISA V and FLORENTIA (the third vessel in the convoy and a bulk carrier of 200 metres in length) was about 1.2 miles, the distance between FLORENTIA and MAPLE LIV (the second vessel in the convoy and a general cargo and container vessel of 138 metres in length) was about 2.1 miles and the distance between MAPLE LIV and AENEAS was about 1.1 miles.

33. At 1807 two tugs were attending AENEAS.

34. At 1818 the Suez Port Authority said by vhf that it "*demands the lowest speeds*".

35. At 1820 the pilot on MARY LISA V said that there was "*no movement traffic at all, upwards nor downwards*." It appears that by this time AENEAS had anchored. At 1822 the pilot on AENEAS said that he was "*at the channel centre - how can you pass from the anchor?*".

36. At 1826 the pilot on MARY LISA V informed the pilot on IWAMI that MARY LISA V was to "tie" (that is, moor) at KM 154. At 1827 the pilot on board IWAMI informed the pilot on OD that he "*will start tying*" and that there would be about 7 cables between IWAMI and MARY LISA V.

37. By 1830 the speed of IWAMI had fallen to 1.2 knots, the speed of MARY LISA V had fallen to 3.1 knots, the speed of FLORENTIA had fallen to 3.1 knots and MAPLE LIV and AENEAS were stationary. These reduced speeds suggested that some or all of the vessels ahead of OD were preparing to moor or had moored and/or anchored. The distance between OD and IWAMI was 1.2 miles, the distance between IWAMI and MARY LISA V was 0.9 miles and the distance between MARY LISA V and FLORENTIA was 1.2 miles. FLORENTIA and MAPLE LIV were only 3 cables apart, as were MAPLE LIV and AENEAS.

38. At 1831 the pilot on board FLORENTIA said that he would try to "tie".

39. It appears that the vessels did moor, though FLORENTIA collided with MAPLE LIV at 1845 and requested tug assistance.

40. IWAMI, which had commenced "tying" by 1836, was moored by 1906 (as indicated by two messages audible on the bridge of PA). She moored south of KM 153. A screenshot from the ECDIS on OD showed her moored to the east side of the Canal.

41. MAPLE LIV "tied" by 1845.

42. MARY LISA V, whose speed at 1845 was 0.4 knots, indicated at 1859 that she would "tie". At 1900 her speed was 2.1 knots. At 1915 her speed was 0.7 knots.

43. At 1919 tugs were attending FLORENTIA and MAPLE LIV and also MARY LISA V.

44. From about 1930 to 1933 FLORENTIA sought permission to pass AENEAS. It appears that she must have received that permission. The VDR record can be read as evidencing the grant of permission at 1934. The plots prepared by those acting on behalf of PA from the AIS data show that FLORENTIA must have passed AENEAS by 1945. The pilot on FLORENTIA informed Port Control that he had passed AENEAS by 1943.

45. At 1941 MARY LISA V requested permission to pass AENEAS. It appears that her ropes had "broken", that it was "impossible" to moor and he wished to pass AENEAS with the assistance of a tug. At 1945 MARY LISA V (with a speed of 0.8 knots) and MAPLE LIV (stationary) were still astern of AENEAS. But MARY LISA V, having presumably obtained permission to pass AENEAS, passed AENEAS shortly before 2000. At that time IWAMI was still moored and MAPLE LIV was still astern of AENEAS.

<u>The immediate reaction to the AENEAS problem on the bridges of OD, SK and PA and their navigation up until about 1930, some 18 minutes before the collision between PA and SK at about 1948.</u>

46. Although the Owners of PA accepted in their Preliminary Act that the Suez Authority instructed her to stop there is no contemporary evidence of such an instruction. If there had been such an instruction it is likely that it would have been brought to the attention of those on board PA, SK and OD. Yet the VDR of all three vessels contains no trace of such an instruction. I am satisfied, notwithstanding PA's admission, that there was no such instruction.

47. The submission made on behalf of PA was that, at least initially, the vessels in the convoy decided to continue downstream in the anticipation that the problem with "AENEAS" would be resolved reasonably promptly. It is therefore necessary to see what the vessels did after learning of AENEAS' problems. I shall recount their navigation from about 1750 until 1930, some 18 minutes before the collision between PA and SK which occurred at about 1948.

<u>OD</u>

48. At 1750 the engines of OD were at full ahead. The master's recollection was that, having left the bridge, he was recalled to the bridge at 1755, arriving at 1800. However the VDR audio transcript places him on the bridge at 1750 discussing the "*problem with*

the ship ahead." At 1754 the vessel's engines were reduced to half ahead and at 1755 to slow ahead. The VDR audio record shows the master confirming or, more accurately, giving such orders. Thus his recollection as to precisely when he returned to the bridge appears to have been mistaken. At 1801 the engines were put to dead slow ahead and at 1813 they were stopped. Between 1813 and 1814 there were movements ahead but thereafter the engines were worked astern before being stopped at 1819.

49. During this period (at 1802) the pilot on board OD gave instructions to lower the mooring boat and to prepare the ropes for making fast. At this time the pilot expected the canal to be clear in about 30 minutes.

50. Thus immediately after learning of AENEAS' problem OD continued to proceed down the Canal but reduced her speed and prepared to moor.

51. The master gave evidence that at about 1800 the pilot informed him that OD had to wait and would then drop anchor at and make fast to the mooring bollards at KM 152. This evidence is not corroborated by the VDR audio log. It is likely that the master's recollection was at fault in this regard. The master accepted when cross-examined that his discussion with the pilot about mooring may have been "later on"

52. Indeed, it appears that it was a little later that the pilot decided to moor. The master's understanding, when cross-examined, was that the Suez Canal Authority had given an instruction to this effect. But that was not suggested in his witness statement taken on 16 and 17 August 2018 and there is no contemporaneous evidence of such an instruction.

53. At about 1825 the chief officer went to the forecastle anchor station and the second officer went to the aft mooring station. The third officer took over as officer of the watch and stood by the telegraph.

54. At about 1826 the pilot on MARY LISA V informed the pilot on IWAMI that MARY LISA V was to "tie" (that is, moor) at KM 154. At 1827 the pilot on board IWAMI informed the pilot on OD that he "will start tying" and that there would be about 7 cables between IWAMI and MARY LISA V.

55. At about 1836 the pilot advised the master that a forward spring and a stern line were required. At about 1841 the pilot required the port anchor to be made ready. At about 1848-1849 the port anchor was dropped to 2 shackles. It is likely that OD had decided where to moor shortly before that.

56. At this time OD was to the north of KM 152 and her speed, with her engines stopped, was just over 3 knots. SK was to the north of KM 148 and her speed, with her engines stopped, was just over 5 knots. PA was just south of KM 145 and, with her engines stopped, her speed was 5 knots.

57. OD's engines were thereafter operated mainly astern, before being stopped again at 1900. It appears that the vessel was in the process of mooring to the west bank of the Suez Canal with her bows just north of KM 152. By 1906 she was stationary over the ground and her heading was 154 degrees, such that she was angled into the channel.

58. At 1907 the pilot on board OD informed Port Control that he "*had dropped the anchor and the mooring ropes of the astern"* and was *"resuming the mooring*". This was audible on the bridges of PA and SK. Port Control replied "*Good job, sir*".

59. The log of OD records at 1915 that the vessel was "*made fast with port anchor 2 shackles in water spring line fwd and aft*". The third officer said the same in his witness statement. However, mooring operations may not have been entirely complete by then. The VDR audio record has OD possibly touching the bank at 1918 and then being "*in position*" at 1927 and "*at anchor*" at 1930. It does not appear that any particular difficulty was experienced in mooring though the master's description of the mooring as "straightforward" in his supplementary statement made in February 2020 may not be entirely apt given the possible touching of the bank.

60. The master accepted that it was important to keep a listening watch on vhf because it was necessary to know what the other vessels in the convoy were doing. In his witness statement he said he paid more attention to the vessels ahead of him and so, when cross-examined, he accepted that his focus was on the vessels ahead. He added that he also monitored the vessels astern of him. There is no reason not to accept this evidence but it seems likely that his concentration was focused on the vessels ahead of him, and in particular the vessel immediately ahead of him, IWAMI.

61. The master gave evidence that at about 1927 and 30 seconds he observed SK for the first time visually and by radar. She was on the port quarter distant about 0.15 nautical miles. He recalled that she was stationary and alongside the east bank. He further said that he recalled that at about 1928 he saw PA, visually and by radar, astern of SK and distant about 0.8 nautical miles proceeding at about 2.8 knots. His evidence was that he thought she was preparing to moor. This evidence was challenged on the basis that it was difficult to see why these relatively precise times of observation could be recollected. The position of the SK and the speed of PA as described by the master were not challenged. They were, I infer, based upon screenshots from the VDR and ECDIS available to the master when he made his statement. What is disputed is whether the master noted them at the times stated. When cross-examined about this he said that after dropping his anchor he "checked the surroundings". This appears to me to be probable and explains why he made observations astern at 1927-8 when the mooring operation was about to be completed. I therefore accept his evidence that he noted the position of the vessels astern at or about the time he completed mooring his own vessel. However, on his own evidence he had not made any particular observation of them before then.

62. The master fairly accepted that if there had been no order to stop by the Suez Canal Authority then it was necessary to inform the other vessels, in particular the vessels astern, of his vessel's intention to stop. That was to enable them to react accordingly. He also accepted that he had assumed that the pilot had communicated his intentions to the other pilots in Arabic. There is no evidence that the pilot on board OD informed SK or PA that OD was about to moor. He did however inform Port Control that he had anchored and was mooring at 1907 (which message could be heard on the bridges of SK and PA). With specific regard to anchoring it was suggested to him that "you should have given the vessel behind you advance notice that you were going to do so. And you should have told them where you were going to do so, shouldn't you?". After a pause he replied "*Yes. That should be done. And I was expecting the pilot to do that because he was only talking to the Arabic with the other pilots*."

SK

63. At 17:52 the pilot on SK, who appears to have been on the telephone, said *"Wait a second. Really? Where is that now?"* and immediately ordered the engine speed to be reduced from full to half ahead. I infer that he had been told of the problem with AENEAS. At 17:53 he told the person to whom he was speaking that "*I will call the Port Control and check how things are going"*. He ended the call ½ minute later, told the Master that "s*ome ship is have problem ahead*" and called the pilot on AENEAS. He concluded the call by saying: "*I will call Port Control to investigate the situation and I will be moving on 10 knots since the current is pushing us. Okay, if anything happens it will be under control, the situation is in our hands …"*. Shortly after he spoke to the pilot of MARY LISA V who told him that AENEAS *"does not have engines at all"* and that the *"situation is still unclear"*. After that call the pilot on SK stated that he wanted "*a mooring man*" and for "*the forward station to be made ready*". The engines of SK were slowed and reduced to dead slow ahead.

64. At 1800 the pilot informed someone (referred to as Commandant, possibly the pilot on board PA, see below) that "*we are still taking our time, we may tie or do slow, yes sir, I am still moving very slowly just taking it bit by bit,……let us take it easy and at some point reduce speed to go dead slow…*"

65. Thus, like the pilot on board OD, the pilot on board SK appears to have decided, initially, to continue down the canal but at reduced speed, whilst planning to moor if necessary.

66. The master of SK gave evidence that at 1800 the pilot informed him that SK "would be mooring alongside the eastern bank between KM markers 151 and 152 until the grounded vessel was clear." There is no trace of such an instruction in the VDR transcript. Indeed, in the master's manuscript statement of 15 July 2018 he said that the pilot informed him that the SK would moor between KM 152 and 153. The VDR transcript for late on 15 July 2018 (after the collisions) strongly suggests that this is what the master was told to say by the pilot. When making his statement which stood as his evidence in chief in this action he changed the intended anchorage position to between KM 151 and 152. This correction appears to have been based upon the location at which SK in the event was anchored and, on SK's case, moored. In the result I am unable to accept the master's evidence either as originally stated on 15 August 2018 or as revised in his later statement. Had there been such an instruction from the pilot it is likely that it would have been recorded by the VDR. The master's suggestion in cross-examination that information could also be imparted by the pilot in writing was a forlorn attempt to explain the absence of any reference to the suggested information in the VDR record.

67. At 1808 the pilot had a further conversation with the Commandant who appears to have been the pilot on board PA. He said: *"I prefer you would lower your speed because everything stopped ahead so we would not be stuck, okay, he is approaching .....so if we move on the dead slow ....hopefully we will have time to exit ..... and we won't have to tie or something, okay, so we should keep the relative distance between us, okay commandant, okay".* This suggests that the pilot on board SK had appreciated (correctly, see below) that PA had not reduced her engines.

68. The engines of SK were then operated variously at dead slow astern or dead slow ahead or were stopped.

69. Between 1811 and 1814 the pilot requested the port anchor to be made ready and for two lines to be made ready.

70. At 1815 the distance between SK and OD was still over 2.5 nautical miles.

71. At about 1819 the pilot told the master that he would try not to take tugs. It is possible that the master was concerned about the cost of tugs for some of those listening to the VDR audio record in preparation for this trial could hear the pilot saying that he would try not to pay for tugs.

72. At 1827 the pilot requested the mooring boat to be lowered.

73. Between 1828 and 1830 there was a conversation between the pilots on board SK and PA. I set out below the record of this conversation from both PA and SK although, as counsel for OD submitted, it may not be possible to interleave the two halves of the conversation precisely.

74. The transcript from PA records ringing at 1828:13 which may well have been the pilot on board SK ringing the pilot on board PA. The transcript from PA then records the pilot on board PA at 1828:25 saying:

> *"Allow some distance Captain Amgad [the pilot on SK]. You are moving at 5,7. There are two, there are two …. Keep a distance at the front. And there is space in front of you."*

75. At 1830 the speed of SK was shown by AIS to be 5.7 knots which suggests that the pilot on board PA was observing ECDIS with the benefit of the AIS facility.

76. At 1829:02-25 the pilot on board SK replied (as recorded in SK's VDR audio log):

> *"I will not tie. I will do so. I understand, I am preparing for mooring Okay ? I am preparing for mooring and I am informing you with my situation, okay ? I know what will happen. They are entangled ahead of us. I am telling you ...okay".*

77. At 1829:30 the pilot on board PA replied:

> *"Oh my God, the current is very strong here, Amgad. Oh, I mean……. Ok as long as it applies to all, it's Ok. I have 7 knots, and the current is supporting, I mean. But I need you to adjust the distance between you and me. Just speed forward a little bit to approach Hamid [the pilot on board OD]– four miles take your time my darling.*

78. At 1830 the speed of PA was shown by AIS to be 6.7 knots, which is consistent with what the pilot on board PA said.

79. At 1830:35 the pilot on board PA added:

> *"OK OK he is getting ready and if Begad [the pilot on board MARY LISA V) moors all of us are going to tie, this is normal. What else can we do ! It is our bad luck that day. Oh dear Amgad.".*

80. The submission made on behalf of SK was that in this conversation the pilot on board SK informed the pilot on board PA that SK was preparing to moor. The submission made on behalf of PA was that the pilot on board SK said that he was not to tie up at that time and that he would comply with the request from PA for more distance but was preparing to moor as a contingency.

81. I accept that the pilot on SK said that he was preparing to moor. He said that twice. But the words attributed to him at the outset of his response, *"I will not tie, I will do so",* are puzzling. It is unlikely that this is an accurate transcription/translation. It is more likely than not that the sense of what he was saying was that he was not mooring just yet but was preparing to moor. When he said "*I know what will happen. They are entangled ahead of us*" he was, I think, implying that he would have to moor because the vessels ahead were "entangled". That is likely to be a reference to the first three vessels in the convoy who very close to each other at this time. The comment of the PA's pilot thereafter appears to recognise that:

> *"OK OK he is getting ready and if Begad [the pilot on board MARY LISA V) moors all of us are going to tie, this is normal. What else can we do! It is our bad luck that day. Oh dear Amgad.".*

82. That comment recognised that if MARY LISA V, the vessel astern of the three (entangled) vessels were to moor then all the vessels would have to moor.

83. I do not accept that the pilot on board SK agreed to provide more distance between PA and SK by increasing her speed. The engines of SK had been stopped or operated at dead slow ahead from 1803 until 1831. Thereafter they were operated at dead slow astern, dead slow ahead or were stopped. That does not suggest that the pilot increased his speed as requested. Indeed by 1845 the speed of SK was 5.2 knots and the distance between the vessels did not increase. It was 1.3 miles at 1830 and 1.2 miles at 1845.

84. So the sense of what SK informed PA was that, although SK was not yet mooring, SK was preparing to moor and was likely to do so. PA appreciated that.

85. Observation of the AIS data from MARY LISA V would have shown her speed falling from 3 knots at 1830 to 0.4 knots at 1845. That was a clear indication that she was mooring and so, as the pilot on board PA recognised, all vessels would have to moor. As the pilot on PA said, that was "normal" and there was nothing else to do.

86. At 1845 Port Control asked if anyone needed a tug and the pilot on SK replied, "*if you please send me, I may need a tug*". This does not appear to have been a clear request for a tug. The master in his statement made no reference to any such request. However, he may have been unaware of the conversation between Port Control and the pilot.

87. By 1848, or shortly before, the pilot gave instructions to the mooring boat to moor SK on the west bank of the Suez Canal. This is clear from the VDR audio record. At 1848

the pilot said, *"we will tie on the starboard side"*. There is no suggestion in the VDR audio record that the intention to moor was dependent upon the presence of a tug.

88. The master in his manuscript statement made on 15 July 2018 referred to a plan to make fast to the east bank. He made no reference to a plan to make fast to the west bank. The VDR audio record for late on 15 July 2018 shows that the pilot told the master to refer to a plan to make fast to the east side. In his main witness statement the plan became one in which one line was to go to the east bank and a longer line was to go the west bank. It is true that the line to the west bank proved to be too short, but it was not true that there was a plan to make fast to both banks. Such a plan is not evidenced by the VDR audio record and is not mentioned in the master's manuscript statement made on 15 July 2018. It is likely that the attempt to make fast to the west bank was not mentioned by the pilot to the master on the evening of 15 July 2018 because he did not wish there to be a report of his attempts to make fast on the west bank which had failed.

89. At 1850 the pilot informed the mooring boat that he wished to pass the buoy before mooring. At 1850 SK was approaching the buoys at KM 148. At 1854 the pilot was still telling the mooring boat that he would *"tie"* ahead. At 1854 SK was south of KM 148. At 1858 the pilot said that he would *"tie"* after *"passing the following buoy"*. At 1858 the vessel was about to pass the buoys at KM 149. This information (that he would moor *"just after these buoys that I am passing by"*) was heard on PA at 1900.

90. It thus appears that the pilot of SK decided not to moor before KM 149 but chose to moor after KM 149. Again, there is no suggestion in the VDR audio record that this intention to moor was dependent upon the presence of a tug. If it had been one would have expected the pilot to have asked Port Control when he could expect the tug to arrive. At 1903 Port Control advised one of the tug masters who had asked to be replaced that there were no tugs available.

91. The pilot's decision to moor after KM 149 is open to question. After KM 149 there are submarine cables so that he would not be able to use his anchor to assist with the mooring process. His speed was 4.8 knots as he reached KM 149.

92. Unsurprisingly, without being able to use his anchors SK did not succeed in mooring. At 1906 the pilot told the mooring boat to make fast to the bollard *"beside the submarine cable banner"*. This must have been in way of the submarine cables south of KM 150. But this attempt also failed. It appears that there was not enough line left on the mooring winch, as reported by the second officer at 1909.

93. At 1910 SK's speed over the ground was 3.5 knots and falling. The pilot ordered both anchors to be ready. By this time SK had almost passed the submarine cables. At 1912, when SK was north of KM 151 (and south of the submarine cables) the port anchor was dropped to 2 shackles. At this time her engines were at half astern. The distance between SK and OD was now about 0.6 nautical miles. It had been over 2.5 miles at 1830.

94. The master said in his evidence that when the port anchor was dropped at 1912 *"the mooring boat started to run 2 mooring lines from the stern to the canal banks"*. This was not true as the VDR audio record makes clear. The mooring attempt had started much earlier.

95. At 1916, as SK approached KM 151, the pilot instructed the mooring boat to moor SK to the east bank of the Suez Canal.

96. By 1919 SK had passed KM 151.

97. The entries in the VDR transcript for 1919-1921 suggest that the mooring boat succeeded in getting a line to a bollard on the east bank, but later entries suggest that a connection was still to be made. At 1924 SK's speed over the ground was 1.5 knots.

98. At 1925, when SK was about half way between KM 151 and 152 and OD was no more than 2 cables ahead of SK, the pilot and master of SK ordered the starboard anchor to be dropped to 2 shackles and the vessel's engines were stopped.

99. The master gave evidence that the pilot told him that the distance of 1.8 cables between two moored vessels in the Suez Canal was "normal practice". This is not corroborated by the VDR audio record. I also have difficulty in accepting that engine breakdowns occur so frequently in the Suez Canal that there is a "normal practice" concerning the distance between vessels when they are forced to moor in such circumstances. That SK ended up so close to OD appears to have been the result of failing to moor because the attempt was made at a time when it was not possible to use an anchor to assist in the process.

100. The master gave evidence that SK was made fast at 1925. That cannot be true. The VDR audio record shows the pilot calling for the mooring boat to make fast at 1928 and 1932.

101. At 1928 the speed of SK over the ground was 1 knot. At 1929 the pilot informed Port Control that he needed a tug "*urgently*". At 1933 he said that he needed a tug to hold SK in circumstances where OD was *"less than half a cable"* ahead. It does not appear that the vessels were that close to each other and by this time SK was in fact (and had been since 1931) stationary over the ground.

102. The collision between PA and SK occurred at about 1948. Thus 1931 was some 17 minutes before the collision (C-17). At this time SK was anchored off the east bank and was stationary but was not yet moored to the shore. OD was about 0.2 nautical miles ahead of SK and was moored on the west bank and was stationary.

PA

103. At 1758 the pilot was asked, probably by the officer of the watch, *"what will we do?"* He replied that "*all ships behind have to be guessing*" and that in the event that the engine problem (on AENEAS) could not be repaired *"we have to prepare by mooring boat and mooring men"*. At 1800 the pilot said that he would not reduce speed until he knew what was going on.

104. At 1808, as noted above, the pilot on board SK spoke with the pilot on board PA. He said: *"I prefer you would lower your speed because everything stopped ahead so we would not be stuck, okay, he is approaching .....so if we move on the dead slow ....hopefully we will have time to exit ..... and we wont have to tie or something, okay, so we should keep the relative distance between us, okay commandant, okay".*

105. At 1809 the engines of PA were reduced from full ahead to full ahead manoeuvring.

106. However, although he had reduced his engines to full ahead manoeuvring, the pilot on board PA did not agree with what the pilot on board SK had proposed because at 1811 he referred to him as *"crazy, he slowed down to 7 knots".* He also referred to him in vulgar or obscene terms.

107. But despite that disagreement he reduced the speed of PA. At 1812 the engines were reduced to half ahead and then at 1815 to slow ahead. At 1819 the engines of OD were reduced to dead slow ahead.

108. At 1820 the pilot on MARY LISA V could be heard on the bridge of PA saying that there was "*no movement traffic at all, upward nor downwards".*

109. At 1822 the engines of PA were stopped. Her speed must have fallen accordingly. Just after the engines were stopped the pilot on AENEAS could be heard saying that he was at the channel centre. He added "*How can you pass from the anchor*?"

110. At almost 1828 the pilot on PA said that all vessels astern of AENEAS had received an instruction, "no overtaking". (This statement had been disputed but an independent translator confirmed that it had been stated.)

111. Although PA had reduced her speed, she did so a little later than SK with the result that PA's speed over the ground remained of the order of 10 knots until after 1815 whilst SK's speed over the ground fell from 9.5 knots at 1800 to 6.7 knots at 1815. Although PA's speed had fallen to 6.7 knots by 1830 the distance between PA and SK (by reason of PA's higher speed) had fallen to about 1.3 nautical miles at 1830.

112. This must have been apparent to the pilot on board PA because, as noted above, at 1829 he requested the pilot on board SK "*to adjust the distance please between you and me. Just speed forward a little bit to approach Hamid [the pilot on board OD]– four miles take your time, my darling."*

113. I have recounted the rest of this conversation above. It is not necessary to repeat it here, save to note that the pilot of SK said that he was preparing to moor and that the pilot on PA recognised that if MARY LISA V anchored, all the vessels astern of her would have to moor.

114. At 1832 the pilot stated that he was to prepare the mooring boat and at 1833 he asked that the boat be ready for lowering. (PA's fair deck log recorded that the mooring boat had been lowered into the water at 1825. This time cannot be accurate.) It is apparent from the VDR audio record that he was undecided as to which bank to moor at. He was waiting to see in which direction the vessel drifted.

115. At 1836 an unknown voice was audible on the bridge of PA saying that Captain Aboud (the pilot on IWAMI) was *"tying now"*.

116. At 1843 the pilot was informed that the forward and after mooring stations were ready.

117. At 1845 the pilot on board PA learnt that FLORENTIA had collided with the vessel ahead of her. Just after that Port Control asked if anyone needed a tug and the pilot on

SK (as is clear from the wording of the message) could be heard saying that he may need a tug.

118. At 1847 the pilot on board PA stated that he had not "tied" but was "*moving at the least speed very slowly till we see how it will end up*."

119. At 1854 the pilot decided to moor on the portside (the east bank).

120. At this time PA was just to the north of KM 146, some 3 kms. north of the submarine cables at KM 149. At 1855 her engines were put to dead slow astern. Counsel for PA suggested in their opening written submissions at paragraph 52 that this engine movement was ordered with a view to mooring on the east bank and that thereafter there were various helm and engine orders as the boatmen attempted to make a ship's line fast ashore. This suggestion was said to be based upon PA's VDR audio record (from pages 116-134). I have read and re-read those pages but it is difficult to extract that from the record. Arrangements had been made to moor (the mooring boat had been lowered, crew were at forward and aft stations and it is possible that the astern movement at 1855 was part of that preparation) but there is no clear support for the proposition that attempts were made to moor. Moreover, there is no reference to such an attempt at this time in the master's statement or in PA's log.

121. The pilot was told at 1900 by the pilot on board SK that SK was to tie (that is, moor) "*just after these buoys that I am passing by*." He was passing the buoys at KM 149. The pilot wished SK "*good luck*". The pilot then stopped the engines of PA at 1900 and then put them to dead slow ahead at 1901. This engine movement was ordered after the helmsman had reported "*rudders not working*" so that the order may have been for the purpose of steering as suggested by counsel for PA. The engines were then stopped at 1903. By this time, according to her master, her mooring boat, with three boatmen, was in the water. However, according to the VDR audio log the mooring boat had no radio and communication was only possible by hand signals. PA's speed over the ground at 1903 was under 4 knots.

122. By 1900, the distance between PA and SK was about 1.3 nautical miles. The master said in his evidence that he had noted that OD had stopped. Her speed was 0.9 knots. If he had observed this he would have appreciated that she must be mooring. There could be no other explanation for her reducing her speed to 0.9 knots.

123. At 1907 the pilot on board OD informed Port Control that he "*had dropped the anchor and the mooring ropes of the astern"* and was *"resuming the mooring*". This was audible on the bridge of PA (and SK). At this time PA was south of KM 147. The master in his statement made no reference to this call but accepted that OD moored to the west bank "a few minutes" after 1900. When cross-examined he accepted that the pilot did not inform him that OD had stated that he had dropped an anchor and had resumed mooring.

124. The engines of PA remained stopped from 1903 until 1909. Her helm was put hard starboard at 1908. At 1909 her engines were put to dead slow ahead, when PA was still more than a cable to the north of KM 148, and stopped at 1914. At 1915 PA was about two ship's lengths short of KM 149. The helm was put to hard port at 1915 and to hard starboard at 1920 when the engines were put to dead slow ahead. The helm was put amidships at 1921 and hard port at 1922. These engine movements caused the speed of

PA to increase from 4.1 knots at 1909 to 5.4 knots at 1923. The VDR audio log shows that the pilot was informed at 1917 that the speed of PA was 5.3 knots. What was PA seeking to do at this time? PA's log does not explain. The master's written evidence does not explain. Counsel for PA in their chronology of events (see their opening Skeleton Argument at paragraphs 56-64 which deal with the period from 1903 until 1924) do not explain. No explanation is given by counsel in their chronology for the increase in speed from 1909 until 1923 and the master makes no reference to it. When cross-examined the master said that it was to "regain control of my vessel". That is possible and the fact that the VDR audio record refers to hard port and hard starboard helm orders is consistent with PA having steering problems. Counsel's earlier suggestion at paragraph 52 that attempts were made to moor may have been intended as a reference to this period but it seems clear that there was no attempt to moor the vessel. That would not be consistent with an increase of speed to over 5 knots.

125. It appears that at 1923 action was taken to reduce speed. At that stage PA was approaching KM 150. The engines were stopped at 1923, put dead slow astern and then slow astern at 1924, half astern and then full astern at 1924.5 At 1925 the master or the officer of the watch said, *"Oh my God"*. It appears that on PA there was concern about touching the bottom. The pilot said, *"sand and mud"*. The speed of PA began to fall. By 1929 it was 2.2 knots when her engines were reduced from full astern to half astern, before being stopped at 1931 at which time her speed over the ground was 1.5 knots.

126. PA's log fair deck records that at 1930 the mooring crew were "facing difficulties to hook on in shore bollard" and that communication with the mooring boat was only possible by shouting. The master's (confused) account of what PA was doing at this time includes an account of an unsuccessful attempt to moor (though he puts it after passing the submarine cables). So it seems that there may have been an attempt to moor between 1923 and 1930. If so, PA was attempting to moor without the use of anchors. It was unlikely to succeed. The master accepted in his statement that PA had touched bottom. He attributed the grounding to the transverse thrust of the propeller forcing the stern of the vessel towards the east bank. Even with the fall in speed caused by the movement of the engines astern and the touching of the bottom the distance between PA and SK had now fallen to about 0.5 nautical miles. PA was now past the submarine cables and was approaching KM151. She could now use her anchors.

127. The master gave evidence that before 1925 the vessels in the convoy were *"free to transit the Canal and there was no longer any need to stop or to moor. The situation would normalise."* This cannot have been the case. The evidence was said to be based upon an observation on ECDIS that MARY LISA V and FLORENTIA were underway to pass AENEAS and to exit the Canal. But at 1930 MARY LISA V's speed over the ground was 0.2 knots and FLORENTIA's speed over the ground was 1 knot. Obviously neither was underway. Whilst FLORENTIA did get underway and pass AENEAS between 1930 and 1945 MARY LISA V did not. She and the other vessels remained astern of AENEAS and, it appears, moored. There seemed to me justification for the suggestion by counsel for OD that this evidence had been made up in an attempt to justify the navigation of PA. Certainly it was not true and it is not possible to understand how the master could have reached such a conclusion. It is possibly inconsistent with the PA's log which records difficulty in mooring at 1930.

128. The master also gave evidence, somewhat elaborately, that the two vessels ahead of him, SK and OD, which had not called for tug assistance, did not need to stop. He

thought that SK had concluded that the situation ahead had *"normalised"* and that now SK did not plan to stop. He also said that although he observed OD *"not getting underway"* he assumed that she was *"about to get underway"*. He assumed that SK had slowed down in order to give OD more time to get going. This is deeply improbable. At 1900 SK had told PA that she was mooring and PA had wished SK good luck. At 1907 PA had heard OD inform Port Control that she had dropped anchor and was mooring. There was no reason for the master on PA to assume that at 1920 or 1925 (the two times mentioned by the master) SK and OD were now to get underway. I do not accept his evidence. It appears to be an untruthful attempt to explain why PA did not moor but continued down the Canal.

129. This explanation meant that the master then had to explain what happened thereafter. He described SK as having to carry out an emergency stop because OD *"did not move forward at all"*. He said that PA also had to carry out an emergency stop. In fact her engines were operating astern from 1923 until 1931 when they were stopped. She slowed but continued to make progress over the ground. She did not stop.

130. So at 1931 or C-17, whilst SK and OD were stationary, PA still had speed over the ground, about 1.5 knots. Her engines were stopped. Her fair log records that she had had difficulty in mooring. But by this time PA had passed the submarine cables or pipelines south of KM 150 and was free to use her anchors. As just noted the distance between PA and SK had reduced to about 0.5 nautical miles and continued to reduce. The distance between SK and OD was about 2 cables.

131. A screenshot from OD's ECDIS at 1928 illustrates the positions of SK and OD in the Canal as PA approached them.

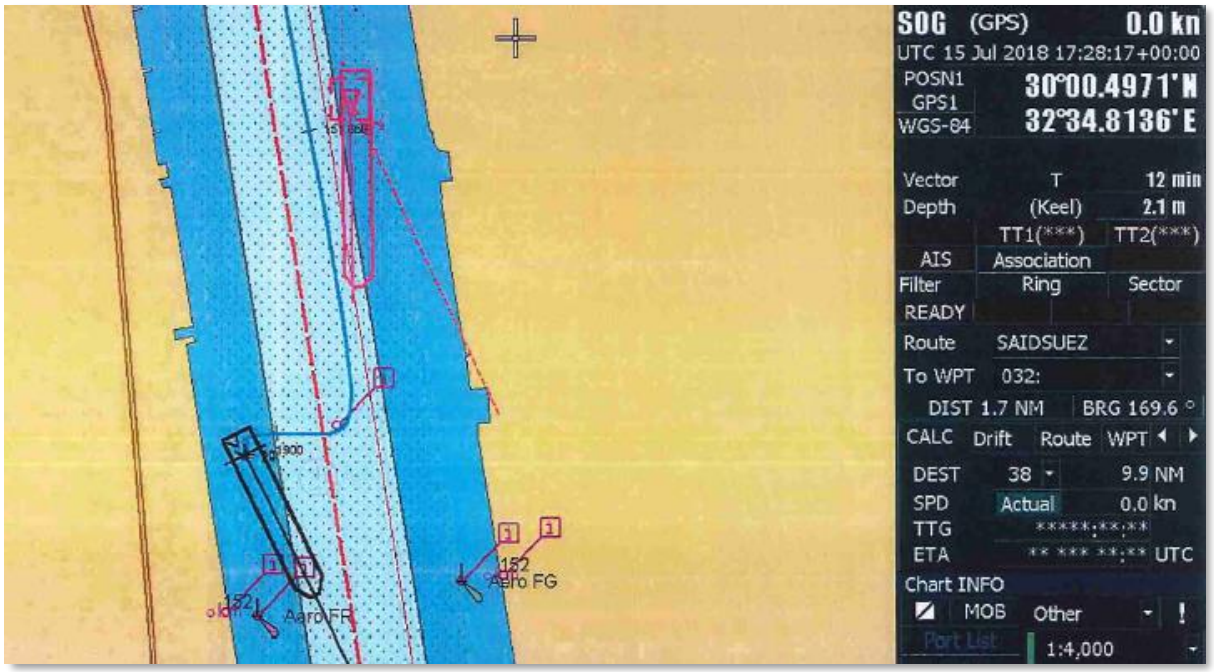

*Figure 1 – 19:28LT – OD ECDIS Screenshot of **SK** and **OD** before 1st Collision*

The events leading up to the collision between PA and SK at 1948

PA

132. The engines of PA were worked dead slow astern or stopped between 1931 (C-17) and 1938 (C-10) causing her speed to fall to under 1.5 knots. At 1938 (C-10) her engines were worked dead slow ahead for 2 minutes before being stopped at 1940 (C-8) and then put dead slow astern. This appears to have increased her speed to a little to over 2 knots at 1941 (C-7) when the crew were ready to drop anchor. At 1941 and 30 seconds (C-6.5) her engines were stopped.

133. During this period, at 1933 (C-15) the request for a tug by the pilot on board SK was audible, as was his concern that he was "*less than half a cable*" from OD.

134. At 1942 (C-6) the pilot on board PA advised the master to drop anchor. The master or officer of the watch gave the necessary order. PA's log records that the anchor let go was the starboard anchor. By this time PA was south of KM 151 and about a ship's length astern of SK. Between 1943 (C-5) and 1945 (C-3) her engines were worked astern before being stopped. Her speed over the ground began to fall but remained at least 1.5 knots. The distance between PA and SK had reduced to about a cable.

135. At 1944 or C-4 the pilot on board SK could be heard saying that PA would hit his vessel. He asked the tug to "*hurry up".*

136. A screenshot from OD's ECDIS at 1946 illustrates the position of PA very shortly before the first collision.

Figure 2 – 19:46LT – **PA** very shortly before first contact with **SK**

137. At 1947 or C-1 the pilot on board OD could be heard saying*: "The three ships are alongside each other."*

138. Just before 1948 the pilot on board PA said: *"I am about to hit the ship in front of me."*

139. At 1948, or just before 1949, PA collided with SK. Seconds after 1949 a "crash sound" was audible on the bridge of PA.

140. The master's account of these events is long, argumentative and improbable (see paragraphs 57-73 of his statement). The suggestion that he positioned PA to pass SK at a time when the starboard anchor of PA had been let go cannot be true.

141. The collision was between the port side of PA and the starboard side of SK as PA passed down the starboard side of SK. Gashes in the starboard side aft of SK's shell plating can be seen in the photographs to which I was referred. Damage marks can also be seen right forward on the starboard bow of SK in way of her anchor chain. This contact must have been with the port quarter of PA.

SK

142. Meanwhile, what had been happening on SK?

143. At 1832 (C-16) she continued with her attempts to moor to the east bank. But, as noted above, at 1833 (C-15) she requested tug assistance as she was *"less than half a cable"* from OD. At 1836 (C-12) the master of SK noted that "*another ship*" (presumably PA) was "*still moving*". At 1938 (C-10) the master and pilot discussed their respective responsibilities for the mooring boat. At 1940 (C-8) the pilot informed Port Control that SK had received no help from the mooring boat and that if he had not dropped two anchors SK would have collided with OD. At 1941 (C-7) the officer of the watch on SK noted that PA was "*getting closer, closer*". The master replied, "*Don't worry, never mind, our vessel is getting closer to the front vessel*." Quite what was meant by that response is not clear. In fact, the table of headings and speeds constructed from the VDR data shows that between 1931 (C-17) and 1942 (C-6) SK remained stationary over the ground and on a constant heading.

144. At 1942 (C-6) the sound of the PA's anchor chain paying out could be heard on the bridge of SK. At that time the bows of PA were about half a cable or a little more astern of the bridge of SK. At 1943 (C-5) attempts were still being made to make SK fast to the east bank. The master was exasperated ("*Shit, shit shit*") and the pilot, noting that PA would collide with SK, requested tug assistance from Port Control.

145. The fair deck logbook of PA records that at 1942 SK had a mooring line "from starboard stern side to shore". If so, then the line must have only just been made fast. The log also records that the line broke at 1944. It is unclear why this would have happened, if it did. SK accepts that the line parted, but says that that happened after, and not before, the collision. The naval architects agreed that the stern line would not have parted under the influence of the prevailing wind and current.

146. Counsel for PA invested much forensic effort in disputing the proposition that SK made fast a line ashore aft; see paragraphs 28-38 of their closing submissions. However, the omission of any reference to, or explanation of, the record in PA's fair deck that a line had been got ashore is striking. The natural inference to draw from this record is that the officer of the watch observed that a line from the starboard side aft of SK was secured ashore. Thus, although SK's master was not a reliable witness, in this regard his evidence that a line was made fast (though not the timing thereof which he put, clearly wrongly, at 1925) is corroborated by the fair deck log of PA.

147. There is much about SK's case or evidence of the line ashore which is unsatisfactory (for example, that it was made fast at 1925) but the entry in PA's log that a line from the starboard side of SK was ashore very shortly before the collision cannot simply be ignored. There is also video footage showing, it appears, a stern line on the starboard side of SK parting during the collision and of a stern line lying on deck after the collision. That is further corroboration that there was such a line ashore and that it parted.

148. The VDR audio record refers to an attempt to make fast a line from the port side of SK but the other evidence (PA's log and the video footage) shows that the line was from the starboard side. It is suggested that this would be difficult if not impossible and reliance was placed on a comment by a naval architect instructed by SK. However, the joint report to which counsel referred stated that this point was not agreed. I have to assess all the evidence, not just a single expert's opinion. I consider it more likely than not, based upon the observation recorded in PA's fair deck log and the video footage of a parted stern line from the starboard side, that such a line was made fast very shortly before the collision.

149. At 1945 (C-3) it appears that Port Control advised SK to move ahead. At 1946 (C-2) the pilot ordered the master to start heaving on both anchors. At 1947 (C-1) the master said, "*get out of the way*" and possibly "*get our vessel bow out of the way*".

150. The table of headings and speeds suggests that from C-5 SK was advancing over the ground at 0.1 knots with her head altering slightly to starboard from C-2. There were, however, no engine movements. This suggests that SK's anchors were not holding her against the current.

151. At 1948 "crash sounds" were audible on the bridge. I have described the contact between the vessels earlier in this judgment. The chief officer of SK stationed forward on SK noted that SK's starboard anchor cable was fouled on the stern of PA.

OD

152. On the bridge of OD the call for tug assistance by SK at 1933 (C-16) was audible. The pilot on OD reported at 1935 (C-14) that he was "*just waiting – and we are well secured*". But he added that "*the boat beside us that is causing this problem*". That is presumably a reference to SK. This probably meant no more than that, since OD was well secured, OD could not be causing a problem. From OD's perspective it was not obvious that there was a problem because SK was stationary.

153. The master gave evidence that at about 1945 he was concerned that PA was approaching SK dangerously. This is corroborated by an entry in the VDR audio record which, at any rate according to those acting for PA, records the master saying at 1946 "*too much problem with that ship*". But he also realised a danger for his own vessel: "*Now problem he will come to us*". At 1947 (C-2) the pilot called for tug assistance, explaining that "*he will hit me*".

154. At 1948 the pilot said, presumably to the master, "*you must start now or else it come to us*." This must have been very shortly before the collision.

Events after the collision between PA and SK leading up to the collisions with OD

155. PA's log records that the port anchor was dropped after the collision. Her engines were operated astern from 1951 until 1958 when they were stopped.

156. About 2-3 minutes after the collision between PA and SK the stern of SK began to swing into the Canal. (The heading of SK began to turn to port at 1950 or 1951.) It is difficult to be sure what the precise cause of this was (save that it must have been connected with the collision). Several possible causes have been suggested. It may have been the result of SK heaving on her anchors (if this continued after collision, which is not clear). PA pleaded that it was in part caused by the anchor cable being "entangled" with PA. That suggestion was not developed. It may have been the result of contact between the portside aft of PA and the starboard side forward of SK as PA moved past SK, though the heading of PA initially altered to port after the collision (from 192° at 1948 to 182° at 1952). It is unlikely to have been the effect of PA's engines operating astern because they were only put astern at 1951 and 30 seconds, though it is possible that the application of astern power pushed the bow of SK to port (as the stern of PA was pushed to port as a result of transverse thrust) and thereby increased the swing of her stern to starboard. There was a slight change of PA's heading to starboard from 182^0 at 1952 to 185^0 at 1954.

157. The evidence from SK is that the swing to starboard caused the stern line to part. That the line did part is supported by the video footage. The PA's fair deck log records this happening before the collision at C-4. As already noted it is difficult to see why this would have happened before the collision. At that time SK had begun to move ahead at a rate of 0.1 knots, that is a cable per hour (or about 10 feet per minute). Whilst it is possible that that very slight ahead movement of SK could have caused the parting it is more likely that the collision resulted in the rope parting. Further, there is video footage apparently showing a starboard line parting during the collision. (Whether the time of 1944 or C-4 was recorded in the scrap log is not known because that was not in evidence. It is possible that the timing was an (inaccurate) estimate made when entering up the fair deck log.)

158. At about 1950 (C+2) the master on OD ordered his anchor to be heaved.

159. At about 1954 (C+6) the Suez Canal Authority instructed OD to move forward and the pilot on board OD replied "*OK*". Some of those who have listened to the VDR record in preparation for this trial could also hear him say "*shall I depart and pass Captain Aboud [the pilot on IWAMI]*." The port authorities appear to have said at 1955 that IWAMI could be passed. (One of the transcripts explains that that was because IWAMI was "*moored straight to the bank*".) However, by 1957 (C+9) it was appreciated that her anchor could not be heaved because it was leading aft, "*leading 8 o'clock short stay*".

160. At 1958 (C+10) the Suez Canal Authority required OD to move and described OD as "*the core of the problem*". The pilot on board OD replied that if he pulled on his anchor "*my ship will hit yours*". I infer that that was a reference to PA.

161. At 1959 (C+11) the pilot on board OD said that PA was "*along beside me, I can't depart" …we are coming towards each other*".

162. By 1959 (C+11) SK's heading had swung from about 187° at collision to about 134°. The rate of turn began to increase at about 1952. It is likely that this was because of the

current and because the stern was no longer held by the line which had parted. (The heading of PA did not move appreciably between 1952 and 1959 notwithstanding the use of astern power.) At 1959 the master ordered hard starboard helm. But the stern of SK continued to swing to starboard.

163. At 2000 (C+12) the pilot on board OD said that PA and OD were "*going to collide*".

164. At this time the pilot and master of OD ordered the mooring line forward to be heaved, with a little slack on the anchor. This was, as explained by the master in evidence, which I accept, an attempt to move the bow of OD towards the bank. At 2001 (C+13) the pilot asked if the engines were ready, the master replied immediately that they were and the master ordered the engines to be put astern. It appears from the VDR audio log that by 2002 (C+14) they were working astern. (Although the bell book does not record this, the agreed schedule of navigation has the engines working astern for about a minute). At 2003 (C+15) the engines were stopped. At the same time the pilot observed that OD was "sandwiched" between PA and SK.

165. Two screenshots from OD's ECDIS at 2001 and 2002 illustrate the manner in which SK's stern swung to starboard and PA's bow moved towards OD.

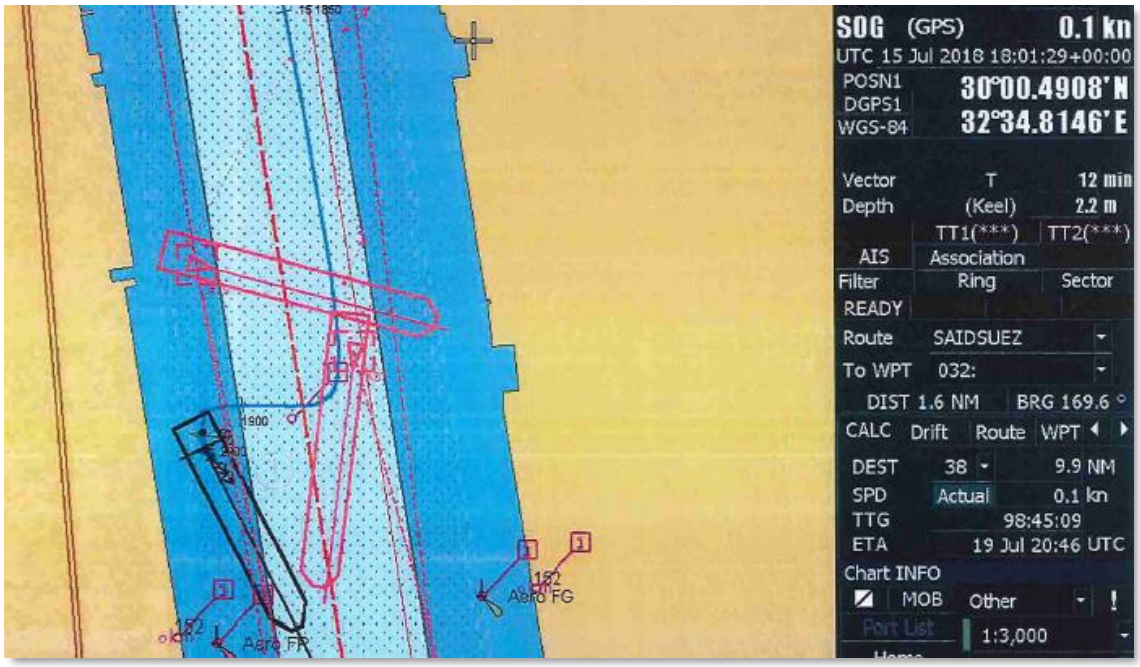

Figure 3 - 20:01LT

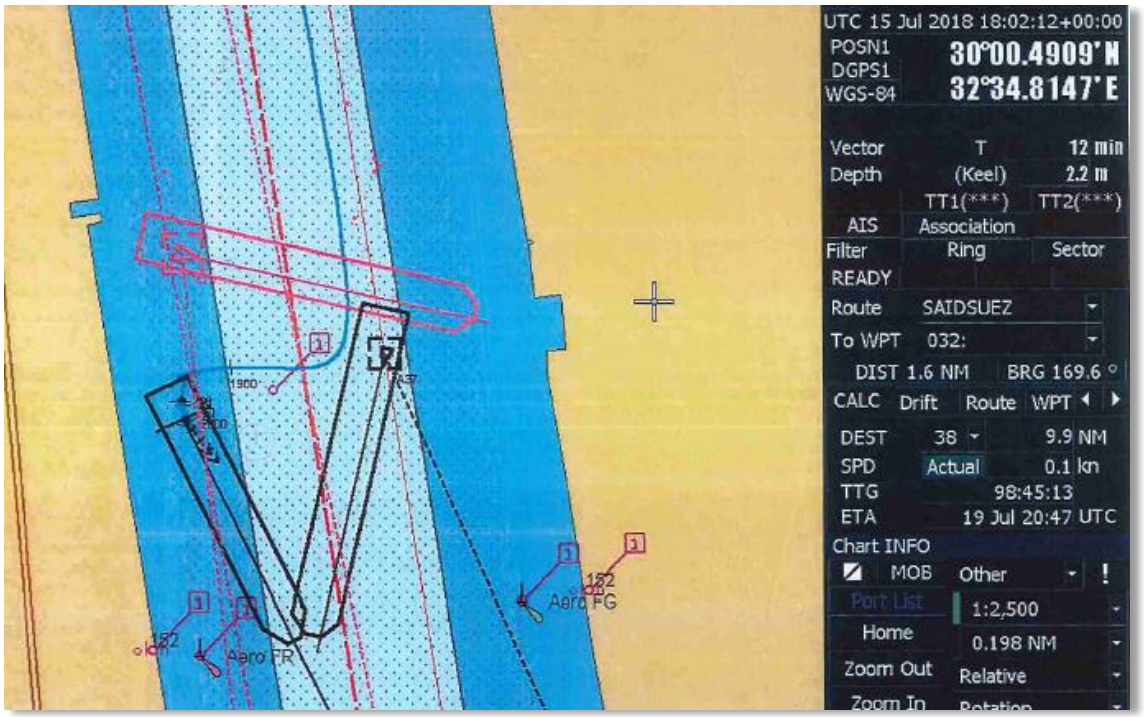

Figure 4 - 20:02LT

166. By about 2003, when SK was heading about 100^{o}, her starboard quarter struck the port quarter of OD. At about the same time, and as recorded in OD's log, PA struck OD on her port side forward. It has been said on behalf of OD that there was contact between OD's railing and PA's starboard hawse pipe which was described on behalf of PA as minor. However, this is not the occasion to determine the extent of damage caused by this collision.

167. A screenshot from OD's ECDIS illustrates the collisions at 2003 and the remarkable triangle formed by the vessels.

Figure 5 - 20:03LT – The later collisions

168. OD's lines parted, her anchor cable ran out and the three vessels moved slowly down the Canal (in the form of a triangle until about 2007-8 when the stern of SK fell astern of the stern of OD).

169. At 2005 a tug arrived south of PA, SK and OD.

170. OD put her engines variously astern from 2006 until 2012. The master's evidence, which I accept, was that the purpose of these engine movements was to arrest or control the drift downstream of OD. The schedule of speeds shows that the movements were effective. The speed fell from 2.2 knots at 2006 to 0.1 knots at 2012. PA was a few meters to port.

171. The master's evidence was that at about 2013 there was a further contact between the starboard bow of PA and the port side of OD in way of cargo hold no.1. This evidence was corroborated by an entry in OD's log which read "*ship's spring lines parted. 2011 – 2nd hit from Panamax Alexander on port on abeam cargo hold No. 1, 2015 – 2nd Hit from Sakizaya Kalon on dead astern*." I am not sure whether the log purported to record the time of the second collision between PA and OD at 2011 or 2015 but it is clear that it records a second collision between PA and OD. A second collision was disputed by PA. Reliance was placed on the absence of a reference to a second collision in the VDR audio record and on a video taken by the crew of OD from about 2012-2014 which was said to show PA clear at all times. The absence of a reference in the VDR audio log is relevant to note but does not establish that the master's recollection or the OD's log was in error. I viewed the video. It is very dark and the latter half appears to show a gap between the vessels. I had difficulty in making out what was shown in the first half and counsel for OD, after viewing it in a darkened room, suggested that it "starts with a loud

bang and sparks coming out of the starboard hawse pipe of PA" which he said must have been caused by the collision. I was not sure that I could see sparks but I did hear a bang at the beginning. In the result I did not find the video helpful. Reliance was also placed on the ECDIS shots from 2011-2104 but I do not accept that they show "no contact" as suggested. What I did find instructive to note from the schedule of headings was that PA's heading moved to starboard between 2008 and 2013, from 210° to 225°. That is consistent with the evidence of the master of OD that PA drifted towards OD. (During the same period OD's heading initially changed to port before changing to starboard.) At about 2013 PA's change of heading to starboard was arrested. This is strongly supportive of the second collision spoken of by the master of OD. The collision was caused by PA's heading altering to starboard and the effect of the collision stopped PA's swing to starboard. I therefore accept the evidence of the master that there was a second collision. It is supported not only by the contemporaneous log but also by the VDR record of PA's swing of heading to starboard being arrested at 2013.

172. At about 2014 there was a second contact between the starboard quarter of SK and the port quarter of OD.

173. By this time the triangle of vessels had reformed.

174. By about 2016-2017 the vessels had separated. SK continued to swing to starboard with the result that, remarkably, PA and SK ended up on the east side of the Canal on reciprocal headings, alongside each other. OD was again on the west side of the Canal, a little ahead. It is accepted by PA that there was further contact between SK and PA at 2018.

175. A screenshot from OD's ECDIS at 2025 illustrates PA and SK lying on reciprocal headings and OD again on the west bank but now close to KM 153.

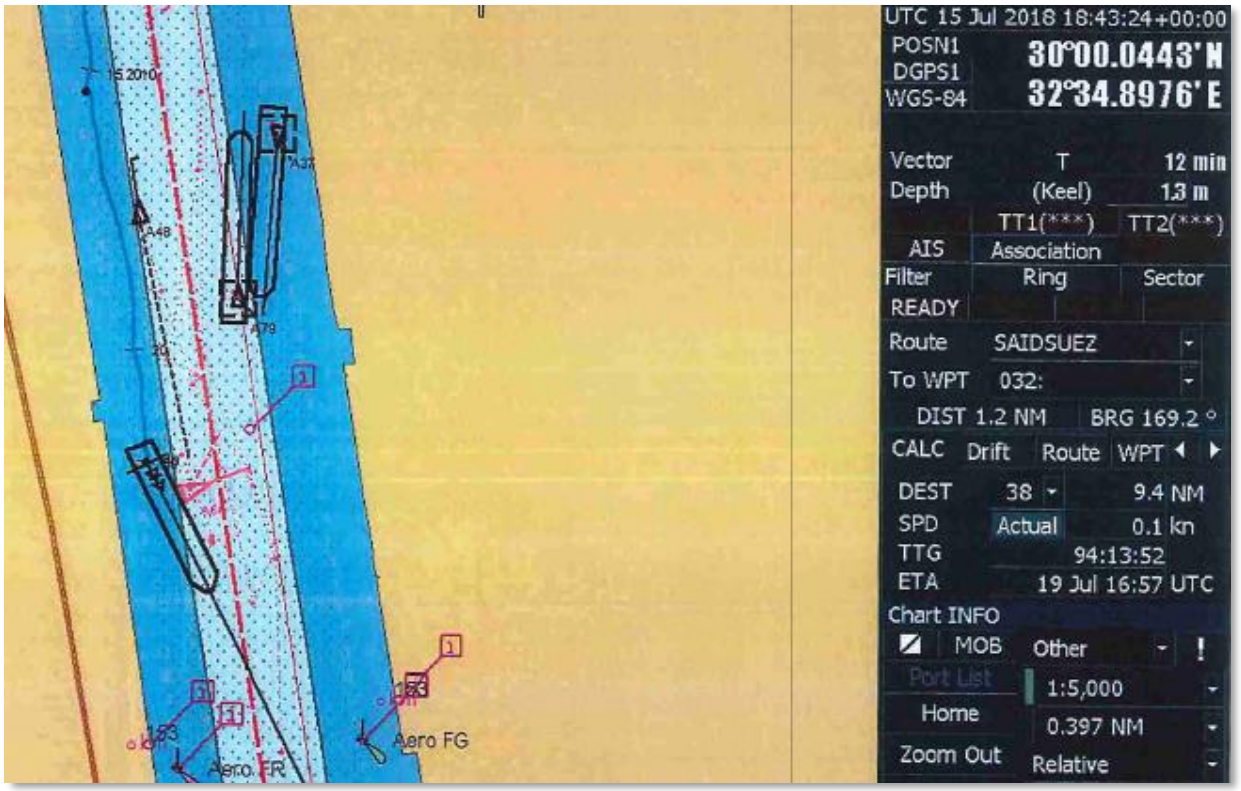

Figure 6 - from 20:25LT - All vessels stopped

Fault

176. There was a gulf between the case of OD and SK on the one hand and the case of PA on the other hand. The case of OD and SK was that the collisions were caused by PA's failure to moor before passing KM 149. The case of PA was that the collisions were caused by the failure of OD to inform PA that she was about to moor north of KM 152 on the west bank and by SK's decision to moor on the east bank just astern of OD thereby blocking the path of PA.

177. I shall first consider the allegations made by OD and SK against PA.

178. This is not a case which involved any of the obligations imposed on a vessel by the Collision Regulations in certain defined situations, for example, a crossing situation. The collisions occurred in a narrow channel but the obligations imposed by the narrow channel rule generally concern vessels proceeding in opposite directions through a narrow channel or vessels crossing a narrow channel. Where vessels are proceeding through the Suez Canal in a convoy and the lead vessel suffers an engine breakdown causing it to anchor in the Canal the relevant obligations will be those imposed by Rule 5, the duty to keep a good lookout, Rule 6, the duty to proceed at a safe speed and Rule 7, the duty to determine if a risk of collision exists. The action required, if a risk of collision exists, will be determined by Rule 8. That rule contemplates that the appropriate action may be helm or engine action but the appropriate action will be whatever is required by good seamanship in the particular circumstances. In the present case the action required of PA was said by counsel on behalf of OD and SK to be not only a reduction in speed but also stopping her progress through the Canal and mooring.

179. The engine breakdown suffered by AENEAS, the first vessel in the convoy, was an unexpected event. It required PA, and of course the other vessels in the convoy, to appraise the situation, consider whether there was a risk of collision and if so to take appropriate action to avoid collision in ample time.

180. In *The Global Mariner and Atlantic Crusader* [2005] 1 Lloyd's Reports 699 Gross J said at paragraph 80:

> "The philosophy of these Rules is both well known and apparent. They emphasize the need for those on a vessel to make a proper appreciation of her situation; assumptions are to be avoided; where there is doubt, a risk of collision is deemed to exist."

Look-out and speed

181. Rule 5 provides as follows:

> "Every vessel shall at all times maintain a proper look-out by sight and hearing as well as by all available means appropriate in the prevailing circumstances and conditions so as to make a full appraisal of the situation and the risk of collision."

182. Rule 6 provides as follows:

> "Every vessel shall at all times proceed at a safe speed so that she can take proper and effective action to avoid collision and be stopped within a distance appropriate to the prevailing circumstances and conditions. In determining a safe speed the following factors shall be among those taken into account:
>
> By all vessels:
>
> ……..
>
> (ii) The traffic density…….
>
> …….
>
> Additionally, by vessels with operational radar:
>
> ……..
>
> (v) the number, location and movement of vessels detected by radar
>
> ……."

183. It is alleged by OD and SK that from shortly after 1759 PA proceeded at an unsafe speed. PA ought, it was said, to have immediately reduced her engines to full ahead manoeuvring and then, within 5 minutes, reduced them to half ahead and slow ahead. In fact, she did reduce her engines and stopped them between 1809 and 1822. This action was taken a little later than similar action was taken by SK. The result was that

by 1830 the distance between PA and SK had fallen from over 2.5 miles to 1.3 miles. It remained about that distance until after 1915. It was submitted that that distance was too short and that PA ought to have put her engines astern by no later than 1830 so as to increase that distance. Her engines were not put astern until 1854. By this time her speed over the ground was 4.7 knots.

184. This criticism was not accepted by counsel on behalf of PA

185. It seemed to me unlikely that the question whether PA ought to have reduced her engines earlier than she in fact did (for example between 1755 and 1808, rather than between 1809 and 1822) would prove to be relevant to an assessment of liability for the later collisions. The suggested fault occurred almost 2 hours before the first collision between PA and SK at 1948. Moreover, if it was a fault, there was a timely opportunity for PA to correct it by putting her engines astern at 1830 and so increasing the distance between PA and SK (which had fallen from over 2.5 miles to about 1.3 miles). In those circumstances it seemed to me that the relevant time to consider any fault of PA with regard to speed concerned the time at which she ought to have put her engines astern, which counsel for OD and SK put at no later than was at 1830. This is not, as was suggested in argument, to resurrect the "last opportunity" rule. That rule once prevented a fault by the defendant from being causative of damage if the plaintiff had a later opportunity to avoid the damage and failed to take it. It is rule which has not survived as a principle of causation; see *The Ouro Fino* [1988] 2 Lloyd's Reports 325 at p.329. Restricting an examining of the speed of PA to the question when, if at all, PA ought to have put her engines astern is not to resurrect the "last opportunity" rule. Rather, it is a recognition that not all faults which precede a collision, particularly those which occur a long time before the collision, are causative of the collision. A fault may provide the opportunity for the collision without being one of the causes of it.

186. The question of a safe speed (and in this case the concomitant safe distance between PA and SK) raises a question of seamanship. I therefore asked the Elder Brethren for their advice as Nautical Assessors on the basis of facts which I have found and which the Assessors were to assume were correct. As requested by one of the parties I asked the Assessors to note, as I am sure they would do anyway, that the references to speed in the assumed facts were to speed over the ground. I also informed the Assessors of my finding in relation to the current, namely, that it was south going at a rate of 2-3 knots and probably nearer 3 than 2 knots.

187. When seeking and obtaining advice from the Assessors I have followed the course described in *The Global Mariner and Atlantic Crusader* [2005] 1 Lloyd's Reports 699 at paragraphs 12-17 by Gross J., who in turn followed the advice given by Clarke LJ. in *The Bow Spring and Manzanillo II* [2005] 1 Lloyd's Reports at paragraphs 59-61 as to what should be done to ensure that the advice of the Assessors is sought and obtained in a manner compatible with article 6 of the ECHR. Thus counsel were invited to indicate in their closing submissions the topics upon which advice might be sought. The questions which I proposed to put to the Assessors (and the underlying assumptions) were provided in draft to counsel so that they might comment upon them. Counsel did so in writing. I then finalised the questions which I put to the Assessors and informed counsel of them. In due course the answers provided by the Assessors were also provided to counsel so that they might make submissions upon them. Those submissions were provided in writing and I have of course taken them into account before reaching any final conclusions on the matters in issue.

188. I asked the Assessors to note that at 1830 the position was as follows:

i) The engines of PA were stopped and had been stopped since 1822.

ii) Her speed over the ground was 6.7 knots and was falling.

iii) PA was approaching KM 142.

iv) The distance between PA and SK was 1.3 miles. SK was at KM 144.

v) Observation by ECDIS (with its AIS facility) would have revealed (see the plot at 1830, E Tab 11A page 10R) that whilst SK and OD were still underway (each at 5.7 knots) the speed of IWAMI (which was 1.2 miles ahead of OD) was 1.2 knots. The speeds of MARY LISA V and FLORENTIA were 3 and 3.1 knots respectively and each vessel was, respectively, 0.9 and 1.2 miles ahead of the vessel astern of her. MAPLE LIV and AENEAS were both stationary. The three vessels at the head of the convoy could be observed to be very close together, 0.3 miles separating FLORENTIA and MAPLE LIV and 0.3 miles separating MAPLE LIV and AENEAS.

vi) Just before 1830 (between 1828 and 1830) there was a conversation between the pilot on SK and the pilot on PA. There was a dispute as to what the pilot on SK informed the pilot on PA. My finding on that issue is that the sense of what SK informed PA was that, although SK was not yet mooring, SK was preparing to moor and was likely to do so.

189. I asked the Assessors the following question: In those circumstances what if any engine action did good seamanship and Rule 6 of the Collision Regulations require of PA? In particular was 1.3 miles a safe distance to keep between PA and SK or did good seamanship and Rule 6 require PA to put her engines astern at about 1830 so as to increase the distance between PA and SK. If the latter, what was the minimum distance between PA and SK which PA ought to have sought at about 1830.

190. The advice which I received was as follows:

> Question: In those circumstances what if any engine action did good seamanship and Rule 6 of the Collision Regulations require of PA?
>
> Answer: In order to take proper and effective action to avoid risk of collision, at 1830 PA should have reduced speed to the minimum to retain control of heading, in order to increase the distance between her and the ships ahead while they decided the action to take given the hazards reported ahead.
>
> Question: In particular was 1.3 miles a safe distance to keep between PA and SK or did good seamanship and Rule 6 require PA to put her engines astern at about 1830 so as to increase the distance between PA and SK.
>
> Answer: NO, we consider 1.3 nm was insufficient. YES, she should have taken off all way at 1830. The transcript shows the

> ship making 8 knots at 1824, 6.7 knots at 1830 (given) and 5 knots at 1846 and slowing. The crew were at stations forward and aft. We do not know if the mooring boat was in the water, although at 1833 they made it ready. One would have to allow at least ten minutes to launch it. If they were stopped in the water at the speed of the current – 3 knots, it would have taken 26 minutes to reach SK, had she stopped. At the approximate average speed they made between 1828 and 1846, approximately 6 knots, 1.3 nm would have taken 13 minutes and they would have had to stop short of SK, giving them even less time. Essentially, they had ten minutes to take all way off the ship and anchor or moor, which we consider would not have been sufficient to stop a safe distance from SK.
>
> Question: If the latter, what was the minimum distance between PA and SK which PA ought to have sought at about 1830.
>
> Answer: At least 2 nm if they were stopped in the water and greater if they were making way through the water. It is worth remembering they were the last ship in the convoy. Within reason it did not matter how far they dropped astern of SK, they could have made up the ground if the canal cleared ahead.

191. Thus the advice of the Assessors is that good seamanship required a minimum distance of 2 miles between PA and SK if they were stopped in the water and more if they were making way through the water. 1.3 miles was unsafe. The basis of the Assessors' advice was that, in the Assessors' opinion, 1.3 miles was too short a distance for PA to be able to stop a safe distance from SK had SK stopped. At her actual speed PA would have had less than 13 minutes in which to stop. The Assessors clearly considered that that was too short a time. That opinion is supported by the fact that OD took from about 1825 (when her chief officer and second officer took up stations fore and aft) until about 1930 to moor and that IWAMI took from about 1827 (when she announced that she would start tying) until about 1907 to moor. It is also to be noted that the pilot on PA appreciated that the distance between PA and SK was too little because at 1829 he requested SK to increase her speed in order to "*adjust the distance please between you and me*".

192. Counsel for PA submitted that the AIS data for 1830 [E/11A/10R] showed that 2nm was practically impossible to achieve from 1830 hrs onwards on account of the fact that SK continued to proceed slowly despite promising to extend the gap. It was suggested that the Elder Brethren did not appear to have considered this. As argued in PA's Closing Submissions, PA had closed up to SK by 1830 hrs because SK had not communicated that her engines were stopped.

193. However, as explained above at paragraphs 73-84, SK did not promise "to extend the gap". I therefore did not ask the Assessors to assume any such promise. It is true that SK did not inform PA that her engines were stopped but she was not obliged to do so and in any event had informed PA that she was preparing to moor.

194. I therefore see no reason not to accept the Assessors' advice. They have given reasons for their advice which are cogent and supported by other evidence in the case as noted

above. I accept the Assessors' advice that at 1830 a minimum distance of 2 miles was required between PA and SK if they were stopped in the water and more if they were making way through the water.

195. Counsel for PA suggested that "clarification" be asked of the Assessors because they had wrongly assumed that SK had her mooring boat in the water at 1830 and was about to stop immediately. However, the Assessors were simply seeking to establish whether, if SK stopped, PA would have sufficient time to stop a safe distance from SK. This was an appropriate question to consider in circumstances where SK had informed PA by 1830 that she was preparing to moor. I therefore did not consider that there was any need to seek further clarification from the Assessors.

196. At 1830 both PA and SK were making way through the water. Thus a distance of more than 2 miles was required. In their advice the Assessors advised in the first part of their answer that PA ought to have increased the distance by reducing her speed to the minimum at which her heading could be controlled. In the second part of their answer the Assessors used different language and advised that at 1830 PA ought to have taken off all way. These two answers could be regarded as inconsistent with each other. But I do not read them in that way. The second answer was in response to the question whether at 1830 the engines of PA ought to have been put astern. Thus the Assessors were of the view that the engines of PA should have been put astern. However, reading both answers together my understanding of their advice is that the speed of PA ought to have been reduced, by putting the engines astern, to the minimum at which her heading could be controlled.

197. In response to this advice counsel for PA submitted that the AIS data showed that PA did exactly that by reducing her speed after 18:30hrs to the minimum at which steerage could be maintained. In unrestricted, deep waters, minimum steerage speed would be 4kts "through the water" and at 18:30 PA was doing just 6.7kts "over the ground" with a strong following current. Reference was made to a page of the vessel's sea trial data which stated, "minimum steerage speed: normal loaded condition: 4.0 knots".

198. The sea trial data was not in evidence at trial and in those circumstances it would not be fair to allow it to be adduced in circumstances where the other parties have not had the opportunity to examine it, and any other related sea-trial data, with their advisers. This is especially so given that a pilot card was in evidence which stated that PA's minimum manoeuvring speed was 3 knots, not 4 knots. In a 2-3 knot current following current the pilot card minimum speed would suggest a minimum steerage way of 5-6 knots. The master said in his written statement that the minimum steerage way in the "very strong following current" was approximately 6 knots, by which I infer he meant 6 knots over the ground. It is possible that he had in mind that in shallow waters the minimum steerage way may have been higher than in deep water. However, PA's speed was in fact allowed to fall to 4.8 knots by 1854 whilst her pilot was deciding on which bank of the Canal to moor and, according to her pilot, PA was proceeding "at the least speed very slowly". Her engines were put astern at 1855, causing her speed to fall further to 3.3 knots at 1901. They were stopped at 1900. There does not appear to have been an attempt to moor at this stage, although her mooring boat was in the water. What appears to have happened is that PA was experiencing difficulties in steering, presumably as a result of her low speed. At 1901 the helmsman can be heard (at least by some who listened to the VDR audio record) saying "rudders not working". At 1901 her engines were put to dead slow ahead, perhaps to retain steerage way, and causing

her speed to increase to about 4 knots. Her engines were stopped at 1903. This does not suggest that her minimum steerage way in the following current was about 6 knots over the ground but was in fact somewhat less than 6 knots over the ground. Having regard to the possibility that the later increase in speed to over 5 knots by 1923 was also to retain steerage way (the hard port and hard starboard helm orders suggest steering difficulties) it is likely that the minimum steerage way was in fact considered at the time to be between 4 and 5 knots over the ground, and probably nearer 5 knots than 4 knots. That appears to be the most reliable evidence of PA's minimum steerage way at the time. Since her speed was in fact 6.7 knots at 1830 her engines ought to have been worked astern at 1830 (as the Assessors advised) to reduce her speed and increase the distance between PA and SK.

199. However, this does not give much scope for reducing speed and increasing the distance between PA and SK and thus the discussion tends to focus attention on whether PA's engines ought to have been worked astern before 1830. Her engines had been stopped at 1822 when, according to the AIS video, her speed was about 8.5 knots. Given that the distance between PA and SK had been about 2 miles at 1815 and was reducing, that the speeds of the vessels ahead of her must have been seen (by ECDIS and AIS) to be falling, that the vessels at the head of the convoy must have been seen to be getting closer to AENEAS, making it probable that the vessels astern of AENEAS would have to moor, the engines of PA ought to have been worked astern at 1822 in order to increase the distance between PA and SK. This is so whether her minimum steerage way in the Canal was 4-5 knots or about 6 knots.

200. My conclusion is, therefore, that PA was at fault in failing to put her engines astern at 1822, instead of merely stopping them, in order to increase the distance between OD and SK. By stopping her engines her speed was of course falling but astern engine action at 1822 would have reduced her speed further and so increased the distance between PA and SK.

201. However, whether PA's fault with regard to her speed was causative of the collision between PA and SK at 1948 is another question which will have to be considered after the further alleged faults of PA have been addressed.

Mooring before KM 149

202. Rule 7 provides:

> "(a) Every vessel shall use all available means appropriate to the prevailing circumstances and conditions to determine if risk of collision exists. If there is any doubt such risk shall be deemed to exist.
>
> ……"

203. Rule 8 provides:

> "(a) Any action to avoid collision shall be taken in accordance with the Rules of this Part and shall, if the circumstances of the case admit, be positive, made in ample time and with due regard to the observance of good seamanship.

> ……..
>
> (e) If necessary to avoid collision ……a vessel shall slacken her speed or take all way off by stopping or reversing her means of propulsion.
>
> …….”

204. It was alleged by counsel on behalf of OD and SK that PA ought to have planned to moor before PA passed KM 149. It was submitted that such a plan ought to have been formed at 1830 or at least that planning ought to have commenced at about 1830 (when IWAMI’s speed had fallen to 1.2 knots which indicated that she was about to moor and that OD and SK would in turn have to moor) and that a plan ought certainly to have been formed by 1845. The basis of this submission was that those on board PA ought to have appreciated that there was a risk of collision if PA did not moor before KM 149. Counsel on behalf of PA submitted that there was no reason for PA to assume that OD and SK would moor after KM 150 and before KM 152 and that in the absence of being informed of that intention by SK or OD PA had no reason to assume that SK and OD would do so. Counsel on behalf of PA also noted that Article 65 of the Suez Canal Regulations provided that masters must avoid anchoring in the Canal “except in case of absolute necessity”.

205. At 1845 the position was:

i) PA was south of KM 144. Her speed was 5.3 knots. Her engines were stopped.

ii) SK was about 1.2 miles ahead between Km 147 and 148. Her speed was 5.2 knots.

iii) Observation of ECDIS and the AIS facility would have shown (see the plot at 1845, E Tab 11A page 10S) that OD was 2.2 miles ahead of SK, south of KM 151, but that her speed had fallen to 3.5 knots. The speed of IWAMI (which was 0.6 miles ahead of OD) was 2.3 knots. The speed of MARY LISA V (which was 1.1 miles ahead of IWAMI) was 0.4 knots. FLORENTIA, MAPLE LIV and AENEAS were each stationary. FLORENTIA was 0.9 miles ahead of MARY LISA V but, as she confirmed by vhf at 1845, had hit MAPLE LIV and the distance between MAPLE LIV and AENEAS was 0.3 miles.

iv) At 1845 Port Control could be heard on the bridge of PA asking if anyone needed a tug and the pilot on SK could be heard saying that he may need a tug.

v) Between KM 149 and KM 150.5 there were submarine cables which would impede the use of anchors to assist with mooring.

206. I asked the Assessors these questions:

i) In those circumstances, and assuming PA continued to proceed through the Canal, by about 1845 ought PA to have determined that there was a risk of collision with SK pursuant to Rule 7 of the Collision Regulations?

ii) If so, did good seamanship require PA to have avoided the risk of collision by planning to moor before KM 149 pursuant to Rule 8 of the Collision Regulations?

iii) If so, would PA, using no more than good seamanship, have been able to moor before KM 149 by use of her engines, rudder and anchors and her mooring boat?

207. I received the following advice:

> In those circumstances, and assuming PA continued to proceed through the Canal, by about 1845 ought PA to have determined that there was a risk of collision with SK pursuant to Rule 7 of the Collision Regulations?
>
> Answer: YES.
>
> We consider that using her bridge systems PA ought to have observed the ships in front slowed or stopped. They had already been told there was a problem at the front of the convoy and at 1830 that SK planned to moor. Even if they decided to pass SK and the ships that had berthed, they were uncertain of whether the Canal was clear, and were putting themselves into a close quarters situation where risk of collision existed, whether with SK or one of the ships further south.
>
> If so, did good seamanship require PA to have avoided the risk of collision by planning to moor before KM 149 pursuant to Rule 8 of the Col Regs?
>
> Answer: On balance yes. Given the number of ships manoeuvring alongside ahead of them, and that some may be close to KM 151, it would have been prudent to moor before KM 149, thus avoiding a close quarters situation with the ships ahead of them.
>
> If so, would PA, using no more than good seamanship, have been able to moor before KM 149 by use of her engines, rudder and anchors and her mooring boat?
>
> Answer: YES. They could have moored, that is stopped making way over the ground by using their anchors and or tying up. It would have been a difficult manoeuvre but achievable (as SK and OD demonstrated)

208. At 1845 a good lookout (by ECDIS and AIS) would have informed PA that IWAMI and MARY LISA V had reduced speed to less than the current which could only mean that they were in the course of mooring. Further, the vessels ahead of them were stationary. The speed of OD was also falling and the pilot on board PA appreciated that if MARY LISA V moored then the vessels astern of her would have to moor. Thus unless PA also moored PA would have to pass one or more moored vessels in the Canal

where it was only one cable in width. The advice of the Assessors was that such a passing would entail a close quarters situation and hence a risk of collision.

209. In response to this advice counsel for PA submitted that in order for a risk of collision to exist both the distance to the closest point of approach and the time to the closest point at approach ("TCPA") need to be sufficiently proximate. It was said that the court's findings (set out at paragraph 4(i) and (ii)) were that PA was doing 5.3 knots and SK was doing 5.2 knots. TCPA was, therefore, a very long way off and not sufficiently proximate. Consequently, this part of the Advice from the Elder Brethren set out in paragraph 5(i) should not be accepted. In any event, as explained in PA's Closing submission, to the extent there was a risk of collision it arose as a result of the failure of communication by SK and OD.

210. Counsel's submission assumes, as I understand it, that PA and SK would continue at 5.3 and 5.2 knots for some time. But a good lookout, as explained above, would have shown that MARY LISA V and IWAMI were in the course of mooring and therefore that those astern of her, including PA, would have to moor. Unless PA did so she was likely to cause a close quarters situation with SK and hence a risk of collision.

211. I therefore see no reason not to accept the advice of the Assessors that there was a risk of collision at 1845.

212. Counsel's alternative submission that the risk of collision was caused by a failure of communication by SK and OD ignores the requirement that it was PA's duty to keep a good lookout in order to assess whether there was a risk of collision. If there is a bad lookout and so the risk of collision is not appreciated that bad lookout is not excused by the circumstance that there was a fault by another vessel which caused the risk of collision.

213. Action was therefore required by PA to avoid the risk of collision. The Assessors, having been asked whether good seamanship required PA to avoid the risk of collision by planning to moor before KM 149 replied, "on balance, yes" and gave their reasons as to why it would have been prudent to do so.

214. In response to this advice counsel for PA submitted that the fact that it would have been prudent to do so does not mean that it was negligent not to moor before KM 149 and therefore good seamanship did not "require" that PA planned to moor before KM 149. It was said that PA had set out in its Closing Submissions the countervailing risks if any attempt to moor failed and the Elder Brethren have acknowledged at paragraph 5 (iii) that it would, indeed, have been a "difficult manoeuvre". Whilst they go on to say it was achievable, this does not mean, in PA's submission, that it was negligent not to attempt such a difficult manoeuvre, particularly in light of the risks if it went wrong.

215. The first part of this submission suggests that the advice that it would have been prudent to moor before KM 149 is not advice that it was negligent (or more accurately, contrary to good seamanship) not to moor before KM 149. However, the advice of the Assessors must be read as a whole. The Assessors' answer to the question, Did good seamanship require PA to plan to moor before KM 149?, was, "On balance yes". The Assessors then went on to explain why. So read it is plain, as I see it, that the Assessors' advice was that good seamanship required PA to moor before KM 149 for the reasons given.

216. At 1845 OD was north of KM 152 and SK was between KM 147 and KM 148. OD was likely to moor in the vicinity of KM 152 and SK, having regard to the submarine cables between KM 149 and KM 150.5 was likely to moor either before KM 149 or after KM 150.5. In such circumstances I accept the advice of the Assessors that the appropriate action for PA to avoid the risk of collision was to moor before KM 149.

217. The second part of Counsel's submission was that, given the difficulty in mooring in a following current, it was not negligent of PA to fail to attempt to moor.

218. Although mooring a vessel in circumstances where there was a following current was, as the Assessors described it, difficult, I accept the advice of the Assessors that it was achievable. Again, read as a whole, the Assessors' affirmative answer to the question, Would PA, using no more than good seamanship, have been able to moor before KM 149?, shows that mooring was achievable using no more than good seamanship. Indeed, the requirement for vessels to carry a mooring boat and the presence of bollards along the banks of the Canal showed that vessels were expected to be able to moor and indicated that nothing more than good seamanship would be required to moor. OD accomplished the task with the assistance of her anchor and SK only had difficulty in mooring because her first attempt to moor was made in a location where anchors could not be used to assist with mooring.

219. What did PA in fact do? Although the pilot had given instructions for the mooring boat to be lowered at 1833 it appears that time was spent deciding on which bank to moor. It was not until 1854 that the east bank was selected. The engines of PA were then put to dead slow astern but, as already noted above, it does not appear that any attempt to moor was made before KM 149. The master accepted when cross-examined that between 1830 and 1845 he had no plan to moor anywhere ahead and at 1847 the pilot stated that he was "*moving very slowly till we see how it will end up*". That comment also suggested that there was as yet no plan to moor.

220. It is therefore unlikely that either the master or the pilot appreciated that there was a risk of collision. The master does not refer to any such assessment in his written statement and in his oral evidence he was keen to say that he did not need to stop or anchor until there was an "*imminent danger*". That is a different concept from risk of collision. The second sentence of Rule 7 provides that if there is doubt a risk of collision shall be deemed to exist. As the editors of *Marsden and Gault on Collisions at Sea* 14th.ed. have suggested at paragraph 5-242 this "*represents a sensible principle of precaution which seems to support the view that it [the risk of collision] need not be a probability, but only a possibility or strong possibility in this context*". Since the Collision Regulations are designed to secure safe navigation my own view is that a risk of collision is a real risk of collision. That does not entail a probability of collision. A possibility of collision will suffice so long as it would be recognised as a real risk of collision by a prudent master. Certainly, risk of collision is not confined to cases of imminent danger. (It is to be noted that Rule 2 allows a departure from the Rules to avoid "immediate danger". That tends to confirm that that risk of collision in Rule 7 is different from immediate danger in Rule 2.) If the master of PA was truly deciding whether to stop or anchor on the basis of whether there was an imminent danger, then he was not acting in accordance with the Collision Regulations. However, it is improbable that the master was making decisions upon the basis of whether there was an "imminent danger" (because he must have known that the test in the Collision Regulations was risk of collision) and that he made reference to such a concept in an

attempt to mask the fact that he had failed to keep a good lookout and to appreciate that there was a risk of collision.

221. The master of PA was asked whether he could have moored before KM 149 by applying astern thrust and using his anchor at 1900 when PA was 1.4 miles north of KM 149. The master replied that to attempt to do so was "too dangerous" because he may "destroy the cable then I will stay in Suez Canal for rest of my life." Counsel for OD submitted that since PA later reduced her speed from 5.5 knots at 1924 to 1.2 knots at 1933 in the space of 8 cables by the use of astern power PA would have been able to moor before KM 149 given that her speed at 1900 was only 3.4 knots. PA's engines had been stopped from 1822 until 1855 when they were put to dead slow astern before being stopped again at 1900.

222. I considered that since this was a matter of ship handling I should ask the Assessors the following question: Would PA, when 1.4 miles north of KM 149 at 1900 and at a speed of 3.4 knots, have been capable of mooring PA safely before KM 149 by the use of astern power, anchors and no more than good seamanship. If not, what was the minimum distance before KM 149 that such a manoeuvre would have to have been commenced to ensure a safe mooring before KM 149.

223. The advice from the Assessors was as follows:

> YES, because they had discussed the evolution at 1830. They could have the ship in position to moor. However, their crew had to be ready to start the procedure at 1900, that is to have the mooring boat in the water and crew at stations for mooring. If the crew were not all ready in position on deck at 1900 it is unlikely they would have been able to achieve this in time.
>
> To answer the second question: They would need to allow approximately 15 - 20 minutes to launch the mooring boat, prepare the anchors and ropes on the focsle and poop decks. Given the speed of the current and the minimum speed over the ground while retaining control (using astern movements to take the way off and the occasional 'kick' of ahead power to control direction), With a 3 knot current and making perhaps 1 – 2 knots through the water, they would have covered most of the 1.4 nm before being ready. Consequently, we consider they would need to have decided to moor at least two nm before KM 149.

224. The Assessors' advice is that provided the mooring boat was launched and the crew were at mooring stations by 1900 then PA would have been able to moor safely before KM 149. The VDR audio record shows that the mooring boat was ready for lowering at 1833 and that at 1843 the crew were ready at the forward and aft stations. The master's evidence was that the mooring boat had been launched by 1900. Thus on the basis of the Assessors' advice, which I accept, PA could have been moored before PA passed KM 149. But in any event the mooring operation ought to have commenced before 1900. At 1845 PA was south of KM 144, so more than 2 miles north of KM 149. Had PA commenced mooring operations between 1845 and 1850 (which was about the time that SK and OD were doing so) there can be no doubt that PA would have moored

before PA passed KM 149. Instead the pilot was, at 1847, waiting to "*see how it will end up*".

Failure to drop anchor until 1942 or C-6.

225. Having taken no action to moor before KM 149 PA continued down the Canal past KM 149. By 1930 the stern of PA was past the submarine cables south of KM 150. By this time both SK and OD were stationary and so it must have been obvious to PA that they either had moored or were in the process of mooring. It must also have been obvious that PA had to stop so as to avoid a collision. PA was 4 cables astern of SK. She used her engines astern or stopped them between 1930 and 1938 when they were put ahead (perhaps to assist with steerage way) before being put astern again. However, it was not until 1942 or C-6 that her anchor was dropped. It was submitted by counsel on behalf of OD that her anchor ought to have dropped much earlier.

226. I asked the Assessors: As a matter of good seamanship ought PA to have dropped anchor at 1930 so as to ensure that PA was stopped and that the risk of a collision with SK was avoided. If good seamanship did not require such action at 1930 when did good seamanship require the anchor to be dropped?

227. The advice from the Assessors was:

> YES. At 1930 they were at a speed at which they could take the way off the ship by putting the engines astern and drop an anchor without hazard to the anchor party and still stop short of SK. It is, though, difficult to predict what would happen next. If dropping the anchor was part of the mooring to the bank operation and the master or pilot were experienced ship-handlers, they could have manoeuvred into position. If they simply used the anchor as an emergency brake they would, sooner or later, veer around the cable(s) pushed by the wind and current. In those circumstances the ship would have come to rest with the stern on the bank of the canal. The other possibility was that the stern, pushed by the current, would swing clear of the bank, through 180 degrees, ending up facing into the current, heading north. This could have resulted in a close quarter situation or collision with SK.
>
> Good seamanship required the anchor to have been dropped very much earlier as part of a controlled mooring operation.

228. I accept the advice of the Assessors that good seamanship required an anchor to be dropped as part of a controlled mooring operation. In my judgment that ought to have been done as soon as PA was free to drop an anchor when south of KM 150.5. If that caused PA to come to rest with her stern on the bank there would have been no collision with SK. If it caused PA to swing clear of the bank and to end up heading north with a risk of collision with SK, any resulting collision would have been a different collision from that which in fact occurred. If the starboard anchor was let go (as in fact happened at C-6) it seems to me more likely than not that PA would have come to rest with her stern on the east bank of the Canal, thus avoiding any collision. Certainly the failure to drop an anchor at 1930 contributed to the collision which occurred between PA and SK.

In any event, PA had put herself into the position of having to act when south of KM 150.5 by reason of her earlier fault in failing to moor before KM 149 and such fault was clearly causative of the collision with SK.

229. When cross-examined the master of PA insisted that there was no cause to stop and moor because, if SK and OD had moored to the same side of the Canal the PA could have sailed past them both safely. I do not consider that this was ever his intention on 15 July 2018. There is not a trace of it in the VDR audio log. On the contrary the pilot of PA recognised from an early stage, 1829, that *"if Begad [the pilot on MARY LISA V] moors, all of us are going to tie [that is, moor], this is normal. What else can we do*." He made no suggestion that PA could simply sail past the vessels moored ahead of him. I consider that the evidence of the master in this regard was a fabrication designed to explain why PA never moored.

Summary of PA's faults

230. (i) PA was at fault in failing to reduce speed at 1822 by putting her engines astern. However, I am not persuaded that this fault was in fact causative of the later collision. If PA had decided not to moor before KM 149 because she had insufficient time in which to do so, PA's failure to put her engines astern at 1822 could well have been causative because the reduction of speed would have given her more time in which to moor before KM 149. However, lack of time does not appear to have been the reason why PA did not moor before KM 149. Rather, the evidence indicates that neither the master nor the pilot appreciated that there was a risk of collision and for that reason they failed to moor before KM 149. Thus the failure to put her engines astern at 1822 does not appear to have been causative of the collision. A fault may also be causative if it contributes to the extent and severity of the damage or loss suffered; see *The Alexandra 1 and Ever Smart* [2019] 1 Lloyd's Reports 130 at paragraph 124 (iii) and (iv) per Gross LJ. However, the failure to put her engines astern at 1822 occurred well over an hour before the collision and thereafter the engines of PA were operated astern, in particular at full astern between 1924 and 1929 (C-14 and C-9) causing her speed to fall to well under 2 knots. Thereafter, between 1938 and 1940 (C-10 and C-8) they were operated at dead slow ahead causing her speed to increase to over 2 knots before her anchor was dopped at 1942 (C-6) with the result that at collision her speed was under 2 knots. In my judgment the failure to put her engines astern at 1822 cannot be shown in this case to have contributed to the extent and severity of the damage. Thus, although the failure was a breach of rule 6 of the Collision Regulations, it was simply part of the history and not causative in law either of the collision or of the damage caused by the collision.

231. (ii) The failure of PA to appreciate that there was a risk of collision and the resultant failure to moor before KM 149 in order to avoid that risk of collision were breaches of rules 5, 7 and 8 of the Collision Regulations and caused the collision between PA and SK.

232. (iii) Having failed to moor before KM 149 and having proceeded past KM 150.5 PA failed to drop an anchor as part of a controlled mooring operation. This was a further breach of rules 5, 7 and 8 and contributed to the collision between PA and SK.

233. I shall next consider the allegations against OD.

Failing to advise that OD intended to moor at KM 152.

234. The master of OD very fairly accepted that his vessel ought to have advised the vessels astern, PA and SK, of his intention to moor. (This obligation arises as a matter of good seamanship and is reflected in article 11E (1) (c) 1 of the Suez Canal Rules which provides that where a vessel is without a pilot due to his sickness or death the master must warn vessels astern of his intended manoeuvre.) He also accepted that he assumed that such notice had been given by the pilot by vhf in Arabic. In fact, although the pilot informed Port Control that OD had dropped her anchor and was mooring at 1907 the pilot gave no notice before the manoeuvre was commenced at or before 1845. MARY LISA V had given warning to IWAMI and IWAMI had given notice to OD. Thus there was a fault by OD in this regard. But the important question is whether it was causative of the subsequent collisions; see *The Global Mariner and Atlantic Crusader* [2005] 1 Lloyd's Reports 699 at paragraph 98.

235. It is necessary to put this obligation in its proper context. PA's own duty pursuant to Rules 5 and 7 was to keep a proper lookout by all available means so as to make an appraisal of the risk of collision. In case of doubt a risk of collision shall be deemed to exist. Assumptions are not to be based on scanty information. Thus it would be quite improper for PA to assume that there was no risk of collision because notice of an intention to moor had not been given by OD. Careful observation of ECDIS and the AIS information would have revealed a risk of collision as explained above. PA's duty was then to take the appropriate action to avoid that risk of collision

236. However, the question whether OD's failure to give notice of her intention to moor was causative of the subsequent collisions depends upon whether PA would have decided to moor before KM 149 had such notice been given. The question is not answered by saying that PA had her own means of appreciating what the vessels ahead of her were doing by keeping a good watch and assessing by all available means whether a risk of collision existed. PA may not have kept a good watch or may not have appreciated the significance of what was apparent. The question is whether, had OD given notice that she was about to moor at KM152 at about 1845, PA would have acted differently than she did and taken action to moor before KM 149.

237. It is not the evidence of the master of PA that had notice been given PA would have decided to moor. On the contrary the master of PA gave evidence that shortly before 1900 he had noted on ECDIS that OD had reduced her speed. By this time OD's speed was less than a knot. He said that a few minutes later OD had stopped and moored on the west bank. It is unclear why he did not act on this information. His explanation is that "the two ships ahead of me had not asked for a tug and the authorities did not send them any. I assumed this was because there was no need for the ships to stop because of the AENEAS situation." I am unable to accept this explanation. It is connected with his untrue explanation that the situation ahead had "normalised" and that he expected OD to get underway. In circumstances where the master has given an untrue account of his navigation it is, I think, difficult for the owners of PA to prove that had the pilot of OD given earlier notice of his intention to moor at KM 152 PA would have acted differently. Of course, common sense suggests that if such notice had been given PA would have decided to moor. But common sense also suggests that where (i) the pilot on board PA had been informed at 1820 that there was no movement up or down the Canal and that AENEAS was in mid-channel, (ii) observation by ECDIS and AIS at 1830 would have indicated that the first 5 vessels in the convoy were about to moor and

(iii) the pilot on board PA had been told at 1845 that one vessel, FLORENTIA, had collided with another and was seeking tug assistance, the pilot on board PA would have taken action to moor, yet he did not. It is possible, and indeed more likely than not as I have found, that the explanation is that the master and pilot of PA were not keeping a good lookout in the sense of making a full appraisal of the situation and of the risk of collision. In those circumstances it may be said that a vhf message from the pilot on board OD at about 1845 would have made all the difference. However, I am not persuaded that it is more likely than not it would have made all the difference. The master and pilot on board PA had access to enough information to suggest a risk of collision and yet did not act upon it. The evidence does not enable the court to find, on the balance of probabilities, that notification by OD of her intention to moor would have alerted PA to the risk of collision and the need to moor. I have therefore concluded that the owners of PA are unable to establish that the absence of notice of an intention to moor by OD was causative of the subsequent collisions. It is more likely than not that they would have occurred even if the pilot on board OD had informed the pilot at or before 1845 that OD was about to moor.

The location of OD's mooring

238. The basis of PA's complaint is that OD decided to moor at KM 152 without appreciating the difficulties this would cause for PA. It was submitted that by mooring at KM 152 OD left insufficient space for SK, and therefore PA, to moor safely after KM 150.5. Counsel for OD submitted that it was or would have been reasonable for OD to expect SK and PA to moor before KM 149.

239. OD must have decided upon where and when to moor at about 1845 for her port anchor was dropped at 1848-1849. At this time OD was to the north of KM 152. Her engines were stopped and her speed was 3.4-3.3 knots. Ahead of OD was IWAMI at a distance of 0.6 miles with a speed of 2.3 knots. At 1827 IWAMI had informed OD that IWAMI was to start mooring and that there would be a distance of about 7 cables between IWAMI and MARY LISA V. Astern of OD was SK who was well to the north of KM 148 with a speed of 5.2 knots. The distance between SK and OD was 2.2 miles. Astern of SK was PA at a further distance of 1.2 miles with a speed of 5.3 knots. PA was between KM 144 and KM 145.

240. Counsel for PA submitted that SK would not have been able to stop and moor before KM 149 and that it would have been an unsafe assumption for OD to make that SK could do so. Further, it was submitted that SK would only be able to stop and moor after passing the submarine cables south of KM 150 and that OD ought to have appreciated that. In those circumstances it was submitted that OD ought to have moored as much as half a mile further down the Canal than she in fact did to allow SK room in which to stop and moor.

241. Counsel for OD submitted that it would have been reasonable for OD to envisage that that SK would moor before reaching KM 149 or, if she did not, that it would have been reasonable to expect SK to stop and moor in the available water south of KM 150.5. Further, it was submitted that, in circumstances where IWAMI had not yet completed mooring, it was seamanlike for OD to moor 6-7 cables astern of IWAMI. A much lesser distance such as that suggested by counsel for PA would have given too little margin for safety.

242. I put the following questions to the Assessors:

i) Ought OD to have envisaged at about 1845 that SK might not be able to moor before KM 149 and that she might have to moor after KM 150?

ii) If so, as a matter of good seamanship should OD have moored south of KM 152 rather than north of KM 152?

iii) If so, what was the minimum safe distance to moor astern of IWAMI given that IWAMI was herself in the process of mooring?

243. The Assessors advised as follows:

> Ought OD to have envisaged at about 1845 that SK might not be able to moor before KM 149 and that she might have to moor after KM 150?
>
> Answer: NO. OD Master was focussed on the safety of his own ship and the developing situation ahead of him. SK and PA were overtaking vessels and he was focused on putting his ship in a place of safety and taking action to avoid a close quarters situation. He was already close to IWAMI and had very little time to prepare and execute the mooring evolution.
>
> If so, as a matter of good seamanship should OD have moored south of KM 152 rather than north of KM 152?
>
> NO. Putting a ship of this configuration alongside pontoons in a strong current and beam wind without a tug is not an exact science. With the Canal blocked ahead, IWAMI close and no apparent harbour control, he moored the ship safely, ending further from IWAMI than he may have needed to, but in the circumstances it was a prudent margin which made an allowance for potential problems during his mooring.
>
> If so, what was the minimum safe distance to moor astern of IWAMI given that IWAMI was herself in the process of mooring?
>
> In the environmental conditions, absence of tugs and traffic management and no escape route if the evolution went wrong the first time, we consider 0.5 nm would have been a safe.

244. The Assessors' answer to the first question was unexpected. It is true that the master was focussed on his own vessel and on the developing situation ahead of him and that, as noted in the narrative section of this judgment (see paragraph 61), the master made no particular observation of PA and SK before 1927 and 1928. It is perhaps understandable (as the Assessors' answer suggests) that the master was particularly focussed on the situation ahead of him. But it is necessary to consider whether he had a duty to observe the vessel or vessels astern of him and to consider their position.

245. I note from *Marsden and Gault on Collisions at Sea* 14th.ed. at paragraph 5-199 that it has been held to be an important part of an officer's duty to keep a good lookout on the ship next astern in a convoy. The case relied upon in *Marsden and Gault* is *The Staffordshire* [1948] 81 Ll.L.Reports 141 at p.146. That case involved a convoy in the Mediterranean in 1944. The circumstances were therefore different and there were (see p.146) particular reasons why, in the judgment of Willmer J., it was important for such a lookout to be kept. *Marsden and Gault* contrast that case with *The Clotilde and Recordo* [1955] 2 Lloyd's Reports 20. That case concerned trawlers leaving Grimsby dock in the early morning. Willmer J. held at p.26 that there was no duty to post a lookout astern because each trawler knew that there were other trawlers leaving dock both ahead and astern. Thus the circumstances were again very different from the present case.

246. The present case concerns a convoy of vessels proceeding through a narrow section of the Suez Canal where the first vessel in the convoy suffers an engine breakdown and has to anchor, thereby causing the vessels astern of her in the convoy to moor. The position in which OD chose to moor could affect the navigation of SK. That is reflected in the admitted duty of a vessel to inform vessels astern of an intention to moor. In those circumstances I consider that OD's duty to maintain a proper lookout extended to, at least, the vessel immediately astern of her, SK. No submission was made by counsel for OD that OD owed no such duty; see paragraphs 160-161 of counsel's closing submissions. It follows, in my judgment, that OD ought to have had regard to the position of SK and where she was likely to moor.

247. If those on board had considered the position of SK at about 1845 they would have appreciated that she would have to moor (for the same reasons that OD had to moor). They would not have known where she was planning to moor but it is more likely than not that they would have contemplated SK mooring north of KM 149 since she was at that time well to the north of KM 148 and there were submarine cables south of KM 149. However, I accept that they ought not to have assumed that that was SK's intention and that they ought to have considered the possibility that SK might have planned to moor after KM 150.5. Indeed, I do not consider that counsel for OD suggested otherwise; see paragraph 160(4)(b) of his closing submissions. I am therefore unable, and with great respect, to accept the Assessors' answer to the first question. It may be that the explanation for the Assessor's answer is that the formulation of my question did not focus as clearly as it ought to have done on the question whether OD's duty of look out, when navigating as part of a convoy through a narrow canal, extended to the vessel astern of her.

248. In these circumstances it is unnecessary to consider the criticism of the Assessor's advice advanced by counsel for PA which concentrated upon the description of PA and SK by the Assessors as "overtaking vessels". There was no discussion at trial, or at any rate no detailed discussion, as to whether PA and SK were strictly "overtaking vessels" within the meaning of the Collision Regulations, that is, vessels "coming up" with OD "from a direction more than 22.5° abaft her beam". Since I have not accepted the Assessors' answer to the first question, it is not necessary to lengthen this judgment by considering whether and in what sense PA and SK were "overtaking vessels".

249. Counsel also criticised the Assessors' comment (when explaining their answer to the first question) that the master had very little time to prepare and execute the mooring evolution. I have made my findings as to when OD prepared to moor and when OD

decided where to moor above at paragraphs 51-55 but, in circumstances where I have not accepted the Assessors' answer to the first question, it is unnecessary to examine this issue further.

250. Although I have not been able to accept the advice of the Assessors with regard to the first question, I do accept their advice in relation to the second question. Given that IWAMI's speed at 1845 was just over 1 knot she must have been in the process of mooring so it was incumbent upon OD to moor without delay. It is likely that IWAMI was mooring just to the south of KM 153. (The ECDIS screenshot from OD at 1927 showed her moored in that position). I am not persuaded that in such circumstances it was a breach of good seamanship for OD to moor just north of KM 152 rather than just south of KM 152, essentially for the reasons given by the Assessors. Of course, mooring just south of KM 152 would have given SK a little more room in which to moor after KM 150.5, but not much.

251. The Assessors' answer to the third question, which I also accept, is that the minimum safe distance to moor astern of IWAMI was 0.5 miles. That is just less than the 1 km between KM 152 and 153. Thus OD may have moored a little further to the north than she needed to but, as the Assessors have advised and I accept, this was a prudent margin since there might have been problems during mooring.

252. In any event, if there were a breach of good seamanship with regard to SK, SK in fact succeeded in stopping and so the breach of good seamanship in failing to moor south of KM 152, if such it was, had no consequence. With regard to PA the choice of mooring location was not a breach of good seamanship (even assuming that OD's duty to keep a lookout extended to PA) because at about 1845 PA was between KM 144 and KM 145 and OD could not reasonably have contemplated that PA would fail to moor before KM 149.

Other mooring criticisms

253. Counsel submitted that OD ought to have informed PA and SK of the difficulties encountered in mooring. But it is not apparent that real difficulties were experienced, notwithstanding that she was not finally secured until about 1930. In any event the current was not abnormal and the pilots on all the vessels would have known of the care required to moor in such conditions. I am not persuaded that there was any breach of duty in this regard.

254. Counsel further submitted that it was a breach of the Suez Canal Regulations for OD to use her anchor to moor. But the Regulations permitted anchoring in case of "absolute necessity". In my judgment there plainly was an absolute necessity for OD to anchor. AENEAS had suffered an engine problem whilst in the canal and had had to anchor mid-channel. The vessels astern of her also had to moor, otherwise there was a risk of one or more collisions. In the absence of tug assistance it was necessary for OD to use an anchor to slow the vessel and to enable the mooring to take place when there was a following 2-3 knot current as explained by her master. Whilst those vessels closer to the tug station appear to have used tugs neither OD nor IWAMI used tugs. SK did not (clearly) summon a tug until 1929 (when she was in difficulty) and PA made arrangements to moor but did not summon tug assistance. Thus it appears that it was reasonable to moor without tug assistance. That being so the use of an anchor by OD was necessary in circumstances where there was a following current.

255. Finally, counsel criticised OD for dropping her anchor beyond the middle of the channel which led to her bow protruding into the channel "rendering her a serious hazard for the oncoming SK". This was done, as explained by her master, to assist with departure without tug assistance. That was reasonable and seamanlike. In any event OD had no reason to suppose that either SK or PA would seek to pass her.

OD's actions after 1930

256. It is first said that OD failed to retrieve her anchor immediately after deploying it. This was said to be a breach of good seamanship and also a breach of article 46 of the Suez Canal Authority Rules which required her engines to be ready for use. The essence of the criticism was that because the anchor cable led aft it could not be heaved up and so, whatever the state of readiness of the vessel's engines, OD was unable to depart. However, as explained by the master of OD the anchor was used, in conjunction with the mooring lines, to hold the vessel in position. The anchor was also necessary to enable the vessel to depart without tug assistance. That evidence is supported by the fact that IWAMI was "moored straight to the bank" and after mooring at 1907 her pilot had said that for his exit he would need a tug. Thus in my judgment the failure immediately to retrieve her anchor could not be contrary to good seamanship. The anchor was required by good seamanship. The vessel's engines were ready for use and ready to start. There was no breach of article 46.

257. It was also said that the master failed to keep a good lookout aft. The first particular observation of SK and PA was a little before 1930. What was seen caused no alarm for the pilot reported at 1935 (C-14) that he was "*just waiting – and we are well secured*".

258. By this time SK was stationary and, with two anchors deployed, was no risk to OD. However, PA was south of the submarine cables and approaching KM 151. She was close to the east bank and her speed was over a knot (though it was increasing). She gave every appearance of preparing to moor and indeed, according to her log, had been trying to moor. There was as yet no reason to think that she was not in the process of mooring.

259. It was not until 1945 that danger was appreciated. Two questions therefore arise. First, ought danger to have been appreciated earlier? Second, if so, what action ought to have been taken?

260. By 1945 the bows of PA had almost reached the stern of SK. This was too late for OD first to appreciate the danger from PA. Counsel for PA submitted that danger should have been appreciated by 1940. Counsel for OD also submitted that PA's difficulties would only have become apparent at about 1940. By 1940 the speed of PA had increased to over 2 knots and she was in the course of passing KM 151. I accept that by this time it ought to have been apparent that if PA was attempting to moor she was having problems in doing so. Having appreciated the danger it would be necessary to decide what action to take. That could take a minute.

261. Counsel for PA submitted that at 1940 OD ought to have decided to slacken down and release her lines and, if (as was the case) she could not retrieve her anchor, ought to have slipped the cable or released the brake and paid out more cable and proceeded downstream. However, counsel for OD submitted that it could not be said that no reasonable mariner would have failed to unmoor OD in an effort to avoid the first

collisions between that vessel and PA and SK. The master would have had to weigh the risk of colliding with PA as OD sought to depart, the time that would be required to depart, the manner in which the anchor was to be slipped, the risk of proceeding down the Canal without a port anchor and the presence of IWAMI and the other vessels moored ahead of her (though not FLORENTIA which had been able by this time to pass AENEAS); see paragraphs 167(5)-169 of the closing submissions of counsel for OD.

262. Since OD was angled into the Canal, to facilitate a departure without tug assistance and her engines were ready, I considered it appropriate to ask the Assessors the following question: Upon the assumption that by 1940 OD ought to have appreciated that PA was a danger because she was passing KM 151 and proceeding through the Canal at over 2 knots towards SK which was stationary off the east bank and 2 cables north of OD, did good seamanship require OD shortly after 1940 to do what was necessary to release herself from her moored position with a view to proceeding downstream. If not, why not? If so, how long would the operation to unmoor and depart take?

263. The answer from the Assessors was:

> NO. OD was alongside and safe. She was under no obligation to move and would have been extremely unwise to attempt to [move] with PA bearing down and the canal ahead potentially blocked. The Rules dealing with manoeuvring and action to avoid close quarters situations do not apply to vessels secure to the shore.
>
> We consider the operation to unmoor safely would have taken in the region of thirty minutes from ordering the crew to stations. It would have almost certainly required a tug to assist to enable them to recover the anchor which was underneath them.

264. Counsel for PA submitted in response to this advice that OD was not safe: her bow was sticking out, her anchor was leading at 8 o'clock and she was in direct breach of the SCA Rules, Articles 46 (obligation to have engines ready for use) and 48(6) (as soon as vessel is made fast, she must be ready to slack down rope or cut them if necessary, and the engines must always be ready to start). I have already discussed these matters. The anchor was a necessary part of the mooring operation. OD was angled into the Canal to assist with departure (though I note the Assessors' advice that a tug would still have been required given that the anchor was underneath the vessel). There was no breach of article 46 (and, as submitted by counsel when responding to criticisms of PA) article 48 did not apply to vessels in the Canal.

265. Counsel for PA further submitted in response to the advice of the Assessors that OD was under an obligation to move: the SCA authorities repeatedly ordered her to move. Although the case of PA appears to be supported by the instruction from Port Control at 1944 to all vessels "to proceed" and from Port Control's comment at 1958 that OD was *"the core of the problem*", I accept the advice of the Assessors that it would have been "extremely unwise" for OD to attempt to move with PA bearing down. OD was securely and safely moored for good reason. If, as the Assessors advise, to unmoor safely would have taken about 30 minutes the operation would have taken place as PA came ever closer. Indeed, it is unlikely that the unmooring would have been completed

before 2003 when PA collided with OD. I am in no doubt that good seamanship did not require OD to move from her moored position.

266. Counsel for PA had a number of criticisms of the Assessors' advice. It was suggested that the Assessor's advice has been influenced by their mistaken belief that PA and SK were over-taking vessels. They did not say it was and I do not follow why it should be regarded as having been so influenced. The Assessors clearly thought that any attempt to move would have been "extremely unwise". That is readily understandable. Counsel also invited the Court to bear in mind that OD did, in fact, albeit belatedly, attempt to take action. I assume that this is a reference to the action taken at 2000. This was an attempt to move the bow towards the bank. I do not consider that it supports the case that OD ought to have attempted to unmoor at 1940. Finally, it was said that the Elder Brethren do not appear to have taken into account rule 2 of the Collision Regulations and the obligation (in essence) to take reasonable care to avoid acts or omissions which OD could reasonably foresee would be likely to injure its neighbour. Rule 2 provides that "Nothing in these Rules shall exonerate any vessel, or the owner, master or crew thereof, from the consequences of any neglect to comply with these Rules or of the neglect of any precautions which may be required by the ordinary practice of seamen, or by the special circumstances of the case." In circumstances where the Assessors consider that it would have been "extremely unwise to attempt to [move] with PA bearing down" I do not consider it realistic to suggest good seamanship required such an attempt to be made.

267. Finally, criticism was made of OD's astern engine movement between 2002 and 2003. It is said that as a result OD "went straight towards the swinging SK's stern" which made "the contact with PA and SK more significant and more damaging". There is no dispute that the engines were put astern. According to the VDR audio record the OD's pilot noted that PA "was coming towards me with the bow" and said that he was seeking to retrieve his anchor. Thus he had a reason for his astern action. A fuller account is given by the master in his statement. He said that at the same time as the engines were put astern he continued with tightening the forward spring and slackening the port anchor chain. Those actions would assist in moving the bow to starboard towards the shore. The astern engine movement would also be expected, as a result of transverse thrust, to push the stern to port and the bow of OD to starboard, away from PA (though the VDR record shows no significant change in heading between 2002 and 2003, 153.5º to 153.7º). Given the proximity of PA to port these would appear to be sensible steps. OD's position was described by her pilot in these terms. "*Captain Amgad's ship [SK] moved transversely and Captain Ahmed Sadeq [PA] moved forward, and I am sandwiched between them now*." I do not consider that the astern movement at 2002 can be criticised. OD was in a most unusual (perhaps unprecedented) and perilous position. As counsel for OD described the position OD, she was "o*n the horns of multiple dilemmas*". In any event it is unlikely that astern movement (dead slow and slow) for no more than about a minute, perhaps less, would have made the contact with SK more significant. In all these circumstances I do not consider that this astern action can fairly be criticised.

268. Counsel for PA also criticised OD's astern action from 2006 until 2012 on the grounds that it made the second contact between SK and OD more heavy, in particular, there was significant damage to SK's engine room and the fresh water tank was punctured. The precise damage caused has not been investigated in this action but in any event the

purpose of these engine movements was to arrest or control the drift downstream of OD. That was understandable and so I do not consider that the use of astern power can fairly be criticised.

269. Counsel for OD submitted that even if the action of OD in putting her engines astern were unreasonable it was done "in the agony of the moment". This is a reference, I infer, to the principle discussed in *Marsden and Gault on Collisions at Sea* 14th.ed. at paragraphs 4-081 – 83. The principle was applied in *The Bywell Castle* [1879] 4 PD 219 and its validity confirmed most recently in *The Regina D* [1992] 1 Lloyd's Reports 543. As expressed in *The Regina D* the principle recognises that there are circumstances, typically where one vessel has suddenly put another vessel into a position of peril and difficulty, where "the practical burden of proving fault in such circumstances is difficult to overcome"; per Beldam LJ in The *Regina D* p. 555. I consider that the circumstances facing OD at 2002 (when she was "sandwiched" between two vessels) and the circumstances facing OD between 2006 and 2012 (when her shore lines had parted, her anchor cable had run out and she was drifting downstream in close proximity to the same two vessels, following the first collision with PA) were circumstances of such difficulty and danger that negligence by OD cannot be established. Even if OD's actions could be criticised it would not be appropriate, in my judgment, adopting the language of Brett LJ in *The Bywell Castle*, to say that SK acted with "such want of nerve and skill as entitles [this court] to say that by negligence and want of skill [OD] contributed to the accident".

SK

270. Counsel for PA made a great many criticisms of the navigation of SK. I think they can be considered under the following heads.

271. First, it was said that, like OD, SK failed to give notice of her intention to moor. This allegation is a factual matter, there being no dispute that SK ought to have given notice of her intention to moor. There is thus no need for any question to be put to the Assessors concerning it.

272. The narrative of SK's navigation shows that she commenced her attempts to moor to the west bank of the Canal at about 1845. There had been a conversation between the pilot on board SK and the pilot on board PA at 1829. I have already made findings about this conversation. The pilot on board SK made clear that he was preparing to moor. Further, the response of the pilot on board PA made clear that mooring was to be expected if MARY LISA V moored and ECDIS (with its AIS facility) suggested that she was preparing to do so.

273. In those circumstances PA can have been in no doubt that SK would have to moor as would PA. At 1900 the pilot on board SK informed the pilot on board PA that he would tie (moor) after the buoys he was passing. The pilot on board PA wished him good luck. There was no surprise expressed.

274. Thus although there was no notification of an intention to moor at or about 1845 PA was aware of what was, or was likely, to happen. I have already explained why the failure by OD to give notice of her intention to moor at 1845 cannot be shown by PA to have caused PA to be navigated in a manner different from that in which she was navigated. For the same reasons PA cannot show that she would have been navigated

differently had SK given her notice at 1845 of her intention to moor. The master of PA made no suggestion in his evidence that PA would have been navigated differently. Instead he gave an account, which was not true, that SK must have concluded at 1910 from "developments ahead" that there was no need to stop. He made no reference to being informed at 1900 that she was about to moor.

275. Second, it was said that SK gave no notice that she had failed to seek tug assistance and intended to moor using anchors. Although it was not accepted that there was a duty to give such notice or to seek tug assistance there was no need to ask questions of the Assessors in order to determine whether this criticism was valid. Obviously tug assistance would help a vessel to moor and the vessels close to the tug station summoned tug assistance for that purpose. But those further away did not, at any rate when preparing to moor. SK did not summon tug assistance, at least not clearly, and OD certainly did not. They were not alone in preparing to moor without tug assistance. PA herself prepared to moor by putting her mooring boat in the water and decided to moor on the east bank at 1854 but did not summon tug assistance. Given the current, and the absence of tugs, it was inevitable that anchors would be used to assist with mooring. The explanation given by the master of OD for using his anchor was sensible and seamanlike. The use of the port anchor assisted with manoeuvring the vessel and with reducing her speed. It also enabled the stern to swing toward the mooring bollard. The pilot on PA must have appreciated such matters and that tug assistance was some distance away and so did not need to be told that SK was planning to moor by the use of anchors, rather than with tug assistance. I do not consider that there was any breach of duty in failing to advise that SK was to moor without tug assistance or in mooring with the assistance of anchors. In circumstances where there was a need to moor and tug assistance was some distance away the use of anchors was an "absolute necessity" and so not in breach of the Suez Canal Regulations. When OD dropped anchor at 1907 as part of the mooring process Port Control replied, "Good job, sir". Port Control would hardly have said that if the use of an anchor was in breach of the Suez Rules of Navigation.

276. Third, it was said that SK conducted her attempt to moor so poorly that she failed to moor and that in consequence SK had to anchor close to the east bank so as to avoid a collision with OD. As a result it was said that she blocked the canal and prevented PA from sailing past.

277. The manner in which SK attempted to moor is certainly open to question. It can be said with force (though for forensic reasons counsel for PA did not suggest this in terms) that SK ought to have moored before reaching KM 149. Had she sought to do so she would have been able to use her anchors to assist with the process of mooring. But having not done sought to do so she attempted to moor after KM 149 and failed because she was unable to use her anchors. Thus if SK had collided with OD in consequence she may well have been liable for the resulting damage to OD. But fortunately SK was brought to a halt at C-18 some 2 cables from OD.

278. The suggestion that the manner in which SK attempted to moor prevented PA from sailing past in safety (because SK ended up on the east bank whilst OD was on the west bank) is unrealistic and untenable. First, it was never the intention of PA to sail past a moored vessel. As her pilot said, if MARY LISA V moored, then all the vessels astern of her would have to do so. There was no alternative. Further, the pilot was aware that all vessels had received an instruction that there should be no overtaking. Second,

sailing past was not a safe option. The master of PA was keen during the course of his cross-examination to illustrate a vessel moored parallel to the bank to enable a vessel astern to sail past her. But a vessel which moors without tug assistance is likely to be angled into the Canal so as to enable her to depart without tug assistance. This was explained by the master of OD. His approach was seamanlike. (It appears that IWAMI, a smaller vessel, did not do so, despite having an anchor down, but in consequence she needed a tug to leave her moored position.) The Canal was a cable in width. With a vessel moored to the west bank, angled into the Canal and with her port anchor deployed, there was likely to be insufficient space to enable a laden bulk carrier to sail past in safety. Regard has to be had not just to the question of there being available water but also to the possible effects of interaction between the vessels and between the passing vessel and the bank (see *Interaction between Vessels and their Environment* by Brian Corlett, in Appendix 7 to *Marsden and Gault on Collisions at Sea* 14th.ed.) It is no doubt because of the narrow width of the canal and the possible effects of interaction that article 73 of the Suez Canal Rules provides that vessels are not allowed to overtake one another while underway in the Canal unless authorised by Port Control. Third, it was not just one vessel which was moored. At least two others (and possibly three) were also moored (at 1930). For these reasons I have concluded that the master's evidence that he was prevented from sailing past SK because she had moored on the east bank whilst OD was moored to the west bank was untrue. It was made up in an attempt to explain and justify PA's navigation. Thus any negligence by SK in failing to moor before KM 149 on the west bank did not prevent PA from sailing past SK. That being so there was no need to put any question concerning this criticism to the Assessors.

279. Counsel for PA raised a fourth criticism, namely, that after SK stopped at 19.30 and prior to contact with PA at 19.48, SK should have moved ahead past OD. The criticism put to the master of SK in cross-examination was that as a result of arguing with the pilot about the mooring operation he failed to keep a good lookout astern but that at 1937 (C-11) and 1941 (C-7) he noticed and was warned of the danger from PA. At that time it was suggested that the master ought to have slipped anchor or driven forward on his engines so as to move forward. Indeed, it was, I think, suggested that if he had kept a good lookout astern he should have taken such action earlier. It is, however, difficult to find any reference to, or development of, this criticism in Counsel's closing submissions; see paragraphs 145-152 of those closing submissions which deal with the period after 1930. (There is a suggestion in counsel's chronology at paragraph 78 that at 1940 SK's pilot informed the master that SK could pass OD. But nothing was made of this either in the lengthy submissions on fault or in cross-examination of the master and counsel's understanding of the exchange was in any event challenged by counsel for OD at paragraph 76 of his closing submissions. It is unlikely, as it appears to me, that the pilot was saying that SK could pass OD at 1940.) Nor, I think, was the criticism mentioned in counsel's oral closing submissions (though this may have been because of the pressure of time). When counsel received from the court the proposed questions for the Assessors (which contained none in relation to SK) counsel submitted that the following question be put to the Elder Brethren: "Whether, after SK stopped at 19.30 and prior to contact with PA at 19.48, SK should have moved ahead past OD ?"

280. Before dealing with the underlying allegation it is appropriate to comment upon the proposed question. When a question is asked of the Elder Brethren as Assessors in the Admiralty Court as to what is appropriate as a matter of good seamanship or ship handling it is usual, though no doubt there are exceptions, to state the assumptions upon

which the questions are based. The practice is referred to by Lord Sumner in his clear and penetrating account of the respective roles of judge and assessor in *The Australia* [1927] AC 145 at pp. 150-153 with which Lords Phillimore, Carson and Blanesburgh agreed, see pages 155 and 157. Lord Sumner observed that the facts of that case made it "easy to state to the assessors the assumptions on which they were to consider the questions put to them." As a result of the practice now followed to ensure compliance with article 6 of the ECHR (see above at paragraph 186) the factual assumptions tend now to be expressed more clearly than in the past. This is to ensure that counsel know the factual premises of the proposed questions at a time when they have not seen the judgment of the court setting out the facts as found by the court. This practice almost inevitably ties the question to a particular time. The question proposed by PA, by contrast, states no assumptions and relates to a substantial period of time, namely, the 18 minute period between C-18 and collision. I do not consider that such a broad question can properly be put to the Assessors. It not only asks the Assessors their opinion on a matter of seamanship, their legitimate role, but also risks asking them to decide or assume facts of the case relating to that 18 minute period, an illegitimate role. As Lord Sumner stated in *The Australia* at p.151: "It is for them [the judges] to believe or to disbelieve the witnesses, and to find the facts, which they give to their assessors and which must be accepted by them."

281. For this reason I did not consider it appropriate to put the suggested question to the Assessors. But in any event I did not consider it necessary to seek the advice of the Assessors on the question whether SK, at 1930, 1937 or 1941 (or at any other particular time) and on certain stated assumptions as to the facts, ought to have slipped her anchor and moved ahead past OD. (Letting go the brake on the anchor chain and driving forward by the use of engine power was unlikely to get SK past OD given that OD was about 2 cables ahead of SK.)

282. The circumstances were that, from 1930, SK had, by the use of her engines and two anchors, brought herself to a stop just two cables astern of OD. At 1940 (C-8) her pilot informed Port Control that if he had not dropped two anchors SK would have collided with OD. At 1943 (C-5) attempts were still being made to make SK fast to the east bank. This was hardly the time to be contemplating slipping both anchors. Ahead of her was OD angled into the Canal with her port anchor out. To seek to pass her in the eastern half of the Canal where the (single) channel was only a cable in width would be fraught with difficulty. As has already been noted the pilot on SK feared that he would have collided with OD had he not let go two anchors. But had he been able to pass her safely he would then have to pass the other vessels which had moored, IWAMI and MAPLE LIV and possibly MARY LISA V, all at a time when he did not have the use of his anchors (because they had, on this assumption, been slipped). Although the master of SK was not generally a reliable witness his reaction to the criticism put to him in cross-examination appeared to me to redolent of good sense and seamanship.

> "At the time - - I had run out of space at the time. I had Osios David on my right. I had other vessels in front of me. And they were all moored up. And I had very little space behind me. Even if I moved forward a little bit or moved back a little bit, it wouldn't have helped because the confined waters meant that no space to manoeuvre."

283. These difficulties applied from 1930 to 1948. But the later the suggested attempt to sail past OD is considered, the greater the danger of striking PA in the course of seeking to do so. At 1942 (C-6) the sound of the PA's anchor chain paying out could be heard on the bridge of SK. At that time the bows of PA were about half a cable or a little more astern of the bridge of SK. To slip both anchors and attempt to move forward at this time would have been hazardous. At 1945 (C-3) it appears that Port Control advised SK to move ahead. But the hazard from PA would be all the greater at that time.

284. For these reasons the suggestion that SK ought at some time between C-18 and collision to have slipped her anchors and sailed past OD lacks any reality. It is not surprising that it was not developed in counsel's closing submissions. I therefore did not consider it necessary to put a question on the suggested criticism to the Assessors. (By comparison, I decided to put a question to the Assessors concerning the action suggested of OD at 1940. OD's mooring operation had been completed, she was angled into the Canal to facilitate a departure without tug assistance and she did not have a vessel moored just 2 cables ahead of her.)

285. A fifth criticism of SK was made with regard to her attempts to heave up her anchors at 1946 (C-2). It was suggested that this had the effect of swinging the stern into the current. The master accepted that it would have that effect but by the same token it would tend to swing the bow to port towards the bank. In fact the heading data from SK's VDR shows that from 1946 until collision at 1948 the heading of SK moved two degrees to starboard from 185^{o}-187^{o}, so that her stern would have moved to port. In the circumstances there is nothing in this criticism at least with regard to causation of the collision between PA and SK. The heading did not start to turn to port, and hence the stern did not start to turn to starboard, until after the collision, at about 1950 or 1951.

286. A related criticism was that there was a failure to apply hard starboard helm and ahead engine action to keep the stern against the bank and prevent the later collision between SK and OD. This appears to be the subject of the further question which counsel submitted should be put to the Assessors: "At 19:55 Hrs, once the stern of SK started to rotate into the Canal, would putting her engine ahead and rudder hard to starboard have prevented further rotation ?". This action was not taken, though at 1959 the helm of SK was put hard starboard. It had little effect. The heading of SK continued to swing to port until the stern of SK struck the stern of OD.

287. At 1955, when it is suggested that SK ought to have applied hard starboard helm and put her engine ahead, the video reconstruction suggests that the port quarter of PA was in contact with the starboard bow of SK. The heading of SK had swung from 187^{0} to 168^{0}. Whether or not the suggested helm and engine action would have arrested the swing of SK's stern to starboard towards the stern of OD, the suggested helm and engine action would have risked exacerbating the contact between SK and PA. (If, as suggested by counsel for PA, PA and SK were not in contact at this time, the suggested helm and engine action would have risked causing such contact.) In those circumstances it is not realistic to suggest that it was negligent of SK not to put her engines ahead and her helm to starboard at 1955. (SK did apply hard starboard helm at 1959 but I am not persuaded that this shows that the suggested helm and engine action ought to have been taken earlier.) There was therefore no reason to put the suggested question to the Assessors.

288. A similar criticism was made of SK's conduct at 2002 and 2012 (that is, just before the first and second collisions between SK and OD). The times were identified in the third

question which it was proposed should be put to the Assessors, namely: "At 20:02 Hrs and again at 20:12 Hrs, as the SK and OD closed together, what effect would SK putting her engine ahead and rudder hard to starboard have had ?"

289. In so far as this criticism was advanced in counsel's closing submissions it appears to be covered by paragraph 151 where it is said that SK ought to have used her engines and rudder to avoid collision. The prudent course of action, it was suggested, was to "drive the bow of SK into the east bank". Since the SK was heading towards the east bank at 2002 putting the bows aground was a possible result of this action. It is difficult to criticise a mariner for not doing that (though there may be circumstances where it is the lesser evil). But in any event the collision occurred a minute later at 2003 and so it is unlikely that the suggested engine and helm action would have had time to prevent the looming collision. Similarly, the second collision occurred at 2013 and so the suggested action at 2012 is unlikely to have prevented it.

290. For these reasons there seemed to be no good reason to ask the proposed questions of the Assessors.

291. The suggested criticisms of SK's conduct after the first collision at 1955 and just before the subsequent collisions at 2002 and 2012 face the further difficulty that at those times SK, having been struck by PA (as a result of her negligence) was in the extraordinary position of heading towards the east bank in the confined waters of the Canal with the stern of PA at her bow and her own stern swinging towards the stern of OD. Adopting the language of Beldam LJ in The *Regina D* [1992] 1 Lloyd's Reports 543 at p. 555 "the practical burden of proving fault in such circumstances is difficult to overcome". These were times when, adopting the language of James LJ in *The Bywell Castle* [1879] 4 PD 219 "perfect presence of mind, accurate judgment and promptitude under all circumstances are not to be expected", an approach expressly accepted by Beldam LJ in *The Regina D* to remain valid. Even if the actions of SK at these times could be criticised it would not be appropriate, in my judgment, adopting the language of Brett LJ in *The Bywell Castle*, to say that SK acted with "such want of nerve and skill as entitles [this court] to say that by negligence and want of skill [SK] contributed to the accident".

Conclusion as to fault

292. The collision between PA and SK at 1948 was caused by the fault of PA in failing to moor before KM 149.

293. It is an unusual case where a causative fault occurred more than an hour before the collision. That that is so in the present case is the result of the facts that (a) the vessels were navigating in a convoy through the Suez Canal where, following the engine failure and anchoring of the vessel at the head of the convoy, it was necessary for vessels astern of her to moor, (b) submarine cables between KM 149 and KM 150.5 prevented vessels from mooring, assisted with the use of an anchor, between KM 149 and KM 150.5, (c) SK was likely to moor either north of KM 149 or south of KM 150.5 and so PA had to moor north of KM 149 and (d) for the hour before the collision PA was proceeding at no more than 5 knots and from C-18 PA was proceeding at between 1.2 and 2.3 knots.

294. PA's further failure to moor, assisted by the use of an anchor, as soon as PA had passed KM 150.5 also contributed to the collision.

295. There was no causative fault by either SK or OD.

Causation with regard to the later collisions

296. In his opening submissions counsel for OD submitted that the later collisions "cascaded" from the first. This was challenged by counsel for PA who submitted that there were separate and very serious faults by SK and OD which caused or contributed to the later collisions. But, on my findings, there were no such further faults. Does it follow that the chain of causation between the first and the later collisions was not broken so that PA must also be held responsible for the later collisions?

297. In *The Calliope* [1970] 1 Lloyd's Reports 84 counsel conceded (see p.96) that where A has suffered direct damage as a result of a collision caused by B and has also suffered consequential damage at a later time and at a different place without any further causative negligence by A, B is liable for that consequential damage also. No such concession was made in the present case. It is therefore necessary to consider whether PA's fault in causing the collision with SK at 1948 was also the cause in law of the later collisions between PA and OD and between SK and OD at 2003, the yet later collisions between those vessels at 2013 and 2014 and the final collision between PA and SK at 2018.

298. That question of causation depends upon whether the effect of the first collision was continuing in such a way as not merely to provide the opportunity for the later collisions but as to constitute the cause of them. The courts have answered questions of this nature (which usually arise where there has been intervening negligence) by the use of metaphors. Was the hand of negligent navigator on board PA still heavy on SK and OD at the time of the later collisions? Were those on board SK and OD not free agents by reason of the hard necessities imposed on them by the first collision? Were those on board SK and OD still in the grip of the first collision? These metaphors and their source are described by Brandon J. in *The Calliope* at p.101. Such questions are to be approached in a broad common sense way; see p. 102.

299. I have no doubt that the first collision at 1948 not merely provided the opportunity for the later collisions but constituted the cause of them.

300. After the first collision the master and pilot of SK were in the grip of the first collision and, as already noted, could not be expected to put SK's engines ahead and rudder hard to starboard with a view to preventing the rotation of the stern of SK towards OD. Similarly, it was unwise for OD to attempt to move from her moored position. All she could do was attempt to turn the bow of OD to starboard away from the approaching PA. The first collision was the real and effective cause of the collisions at 2003.

301. After the collisions at 2003 the three vessels moved down the Canal in the shape of the triangle to which I have already referred more than once. That triangle is a graphic display of the grip in which SK and OD were held as a result of the collisions at 1948 and at 2003. The first collision remained a real and effective cause of the later collisions which occurred at 2013 and 2014. There was nothing that SK could reasonably do to avoid the later collisions and PA understandably applied astern engine power to arrest or control the drift downstream of OD.

302. The final contact was between SK and PA at 2018 as SK and PA lay on reciprocal headings. They had reached this remarkable position after they had been "released" from the triangle and the stern of SK continued to swing. In a broad and common sense way the first collision must be regarded as the real and effective cause of this final contact.

303. I therefore request counsel to prepare draft orders in the three actions giving effect to my decision that PA is wholly responsible for all of the collisions.

Last word

304. I wish to thank counsel, and those instructing them, for their clear, careful and engaging submissions in support of their respective interests. They made this, my last case as the Admiralty Judge, a pleasure to decide. I also thank the Assessors for their careful and thoughtful answers to the questions put to them which were of very considerable assistance in resolving the issues in this case.

305. More generally, I am grateful to the Admiralty Bar Group and the Admiralty Solicitors Group for ensuring, by their participation in the Admiralty Court Users' Committee, that the practice and procedures of the Admiralty Court keep pace with technological developments in the manner in which vessels are navigated and the manner in which their navigation is recorded.

306. Finally, I am grateful to Trinity House and its Elder Brethren for the expert and wholly independent advice they give to the Admiralty Court (and have given for over four centuries) on questions of seamanship and ship handling. Trinity House, since its incorporation in 1514, has been dedicated to the safety of navigation and the advice given by the Elder Brethren enables the Admiralty Court to ensure that its decisions reflect and uphold the standards and requirements of good seamanship. If, as noted by Clarke J. in *The Sanwa and Choyang Star* 1998 1 Lloyd's Reports 283 at p.300, one of the functions of the Admiralty Court is to help to avoid collisions in the future, Trinity House has an essential role in ensuring that that function of the Admiralty Court is discharged.