<THE WITNESS WITHDREW

CAPT McLAUGHLIN: I would like to call CAPT Bairstow.

<WARREN JAMES BAIRSTOW, sworn: [10.50am]

<EXAMINATION BY CAPT McLAUGHLIN:

CAPT McLAUGHLIN: Q. CAPT Bairstow, when did you join the RAN?
A. 19 January 1981.

Q. What was the first step in your training? You completed your normal officer training but what primary qualification did you then commence training for?
A. I started life as a seaman officer before progressing to principal warfare officer training and subspecialist training in above-water warfare and gunnery.

Q. So you completed a Bridge Watch-Keeping Certificate much as LEUT Rivett gave evidence of, along a similar sort of training continuum at the time?
A. Yes, sir, it was under a different name, because it was a little bit further ago, but the same basic principles: firstly you are taught how to be an officer; secondly, once you have those officer skills in leadership and management, which is a continuum throughout your career, you start your primary qualification training, which was, in my case, as a seaman officer.

My course was called EXAC - Executive Officers Application Course - very similar to JWAC, of which a previous witness mentioned, where you go through your primary qualification skills in navigation, bridgemanship, ship-handling, environmental observations, which are the core skills required of the seaman officer.

You progress through the formal part of the training in the classroom and on training ships, to go to sea to gain what is known as your ticket, which is your Bridge Watch-Keeping Certificate, which is your formal qualification to represent the Captain and con the ship, which is to drive the ship through the water on behalf of the Captain and keep it safe in day and night, in single-ship steaming or in company. One of the other key skills of a Naval seaman officer, is to operate in concert with other ships, other than just single-ship steaming from

point A to point B.

Q. After qualification, in which ships did you serve as an officer of the watch?
A. As an officer of the watch I gained my minor war vessel ticket, my first qualification, in a patrol boat, that was HMAS Gawler in 1984, before progressing to HMAS Swan to get what was then a full Bridge Watch-Keeping Certificate in a major fleet unit, so, basically, driving small and then you progress to the larger classes of ship.

Q. Did you then serve on other ships in a sea-going manner prior to doing any further training?
A. You have a period of what is called consolidation, in which you could go to another ship, so, if you term it, you are newly qualified, you have gained your qualification, but you need to practise those skills to gain the requisite experience. I did my consolidation training in the ship on which I got my major fleet unit qualification, my ticket, which was Swan, and then also went to Tobruk, a different class of ship, to further my officer of the watch time, and also one of my other duties there was as the gunnery officer, so my primary qualification was an officer of the watch and I had departmental duties as the gunnery officer of that ship.

Q. After some time at sea did you go into any further, more specialised training or more advanced training from a seaman perspective?
A. On completion of my seaman officer training, experience at sea and consolidation training and watch-keeping experience, I progressed to principal warfare officer training at HMAS Watson. I commenced that in 1991.

Q. How long is the principal warfare officer training process?
A. It has varied over the years, but in my case it was a year-long course, phase 1, which was principal warfare officer core skills, and then you did a second phase which was subspecialist, which, in my case, was gunnery and above-water warfare.

Q. Subsequent to this, where did you then post?
A. On completion of being qualified as a Principal Warfare Officer (Gunnery), PWOG, I progressed to my warfare billets at sea in two ships which have now recently left the RAN, HMAS Adelaide and HMAS Canberra, and progressed

through there as the gunnery officer. On board those ships, the role, whilst on watch, was AWO, Above-Water Warfare Officer, and also after time and experience, I took up the role as Operations Officer, which is normally given to the senior PWO - not always in rank but in experience - and then, during that time, I honed my skills as a single-ship PWO and also as a task group warfare officer PWO responsible for the fighting and direction of the individual ship and also a group of ships in a task group on behalf of the Captain.

Q. On completion of your PWO time, what was your next series of training and what was your next sea billet after that?
A. After completing my PWO billets at sea and my experience, I then went ashore and went to HMAS Watson as one of the instructors in the Principal Warfare Officer faculty and progressed through there as the gunnery instructor to the gunnery instructor directing staff and then also to Officer in Charge of the PWO faculty responsible for the delivery of principal warfare officer training in the RAN.

Following that time, I was selected for command of the Fremantle class patrol boat, HMAS Gladstone, of which I took command in mid to early 1999, and I finished my command of that patrol boat, which was based in Cairns, towards the end of 2000.

Q. Is there any specific training that you do before taking up command of a minor war vessel such as Gladstone?
A. Before taking up a command of a minor war vessel and, in fact, a major fleet unit, you do what is called a CO - commanding officer - designate course, where you go through, from a commanding officer's perspective, the personnel and management regime for which you are accountable for your command. You also go through an update of the issues affecting operations and personnel from a Navy Headquarters perspective and a Fleet Headquarters perspective, and, importantly, you also go through and do a command navigation course, which is a level of supervision and a command aspect to navigation, which is built on your officer of the watch experience.

Q. Following your time in command of a patrol boat and command of HMAS Gladstone, you spent some time ashore. What was your next sea billet after that?

A. My next sea billet after Australian Command and Staff Course, staff course training and HMAS Cerberus, where I was XO, I was selected for a major fleet unit command. I took command of HMAS Arunta based in Western Australia in Fleet Base West and took command in July 2004.

Q. She is a WA-based major fleet unit?
A. Yes.

Q. During your time in command, what type of operations, exercises did you conduct and whereabouts, in what sort of waters did you conduct them?
A. The full experience of the waterways of the world I was lucky enough to experience. Obviously, being a Fleet Base West unit, I did a lot of work in and off the Western Australian coast, a very large amount of work up in the northern approaches around Christmas Island, in South East Asia, the waters around Japan, the South China Sea and up to Vladivostok, and the waters in between on the way back. So I was quite lucky to get a broad experience of the environmental and the sea aspects in the world.

Q. On completion of your time in command of a major fleet unit, what was your next posting?
A. My next posting was as the Commander, Minor War Vessel Sea Training Group. That is where you are in charge of what is called Sea Training Group and our role is to conduct collective training, which is the training of the ship's crew as small teams but as a whole crew of that ship. Rather than like individual training which is done in the classroom, we did our collective sea training at sea and assessed and helped train the ship to high levels of performance to take their platform to conduct operations as directed by government.

Q. In your role as commander of the Sea Training Group, what were your specific or primary tasks? I understand you had staff to do certain things, gunnery and navigation; what was your main focus upon?
A. My main focus was upon the command team and the command interaction. Firstly, to achieve the mission or the aim of a certain activity, but how that command team interacts with the environment around them, with other ships around them and what actual mission they have been tasked to do.

Also, it is to make sure that the whole training

activity achieves its aim, which is to prepare that patrol boat for its mission, to be able to conduct training of itself but also to be able to conduct whatever operations or activities Fleet Headquarters or the Government directs.

Q. Finally, to conclude on this component, what is your current posting?
A. My current posting is Deputy COMFLOT and Commander Australian Surface Task Group. The position in Fleet Headquarters is a tactical warfare commander, as a Captain that can be deployed or go to sea to take charge of a major activity or a task group of ships as staff.

Q. I want now to move to the weather effects and command decision-making. You have heard the evidence of the meteorologist, LEUT Rivett. To make some weather assumptions, for the purposes of giving your evidence we will assume that the weather conditions are as explained by LEUT Rivett, and I will prompt you with those in a moment so that you can draw up your template and the like.

We will also make some relative position assumptions. If we could call up the template now, would you begin by putting Kormoran on a course of 260 at 14 knots. I will just read out the wind and environmental information for you. Wind from 160. Sea from approximately 160. Swell from a southerly direction.
A. I will combine those in the squiggly line as the wind and the sea.

Q. And a bearing of sunset at 248 degrees.
A. Is there a magnitude to the wind?

Q. There is. It is 15 to 25 knots and a sea of 2 to 2.5 metres. I will give you a relative wind, which was at 020, 23 knots. I will give you some initial assumptions. We have evidence from Kormoran sources that Kormoran was on a northerly course and Sydney on a southerly course when she first detected Sydney, and that, upon detection, Kormoran turned away to a course of 250 or 260. At that point, to close Kormoran, what would Sydney have to do?
A. I suppose on this diagram I need to put where I think Sydney was. Could you say again where - she was initially sighted fine on the starboard bow when Kormoran was going north-ish?

Q. Yes.

THE PRESIDENT: Q. According to some German evidence, she was about 20 to 25 miles distance, 45 degrees off the starboard bow?
A. Yes. Kormoran is on 260. Sydney was to the north. Okay.

CAPT McLAUGHLIN: Q. What would Sydney have to do, what would a ship do, in such a situation if it needed or wanted to close Kormoran?
A. From this position, from where, on this diagram, we place Kormoran and Sydney, to close Kormoran's position it would not be a case of just steering straight for the ship. As explained previously, there is what is called relative velocity, and there would be a steering component ahead and a speed component to make sure - obviously, if something is further away, you need to go faster than it. So for Sydney to close, she would have to steer towards Kormoran but in a way that she closes the range without dropping further back in bearing, so for her to close Kormoran, based on Kormoran's 260, she would have to steer somewhere to the right of 260 and have a different speed component to do that.

Q. So a greater speed in order to try to close the distance?
A. Yes.

Q. Where, in normal practice in these weather conditions, noting the southerly winds and swell, et cetera, if you were closing on a ship that you didn't know about, where would you tend to position your ship?
A. It depends on the tactical situation, but from that diagram there - what was the question again, just to close the ship?

Q. To close the ship, where would you be aiming to position yourself as you closed the ship, on that other ship?
A. Well, from your speed advantage, you would try to be in her quarters initially, because that's where the starting position is, and then from there you would have to make an assessment of how much you would have to close, which would determine where you wanted to position the ship.

Q. There is some evidence before the COI from Kormoran

sources that Sydney, once she did close, stationed herself at around relative green 170, or 10 degrees from aft, and was closing slowly, showing a narrow silhouette. Would this accord with your experience?
A. Yes, that would accord.

Q. I want to address at this point a theory that has been postulated. Some theorists put forward a proposition that Kormoran was stopped in the water, that she was flying a white flag. They then propose that perhaps Sydney was preparing to launch a boat to send over to Kormoran to investigate. Assume for a moment that this was so. In these weather conditions, where would an experienced seaman tend to position themselves if they were to launch a boat or were intending to launch a boat to send across to a stationary vessel?
A. Given these weather conditions, what you would try to do is to what is called provide a lee for the launching of the boat. The lee is to protect, by using the ship's structure, the boat from both the wind and the swell. If you can imagine, you want to be able to launch your boat safely.

I would postulate here that Sydney, to provide a lee for the boat and to put the elements - to be up from the Kormoran - sorry, there are two factors. One is to provide the safety lee for the boat. Also - I will call Kormoran the target vessel here - you would want to have the boat going down-sea. The reason for that is that you want the journey to the target vessel to be as easy as possible for many tactical reasons, but the main one being that you want the boat to get there fresh, to be able to do its mission, without the crew on board being fatigued because of any weather conditions.

With those factors in mind - and I will assume that Sydney would still be trying to close Kormoran in some way - from this postulation, I would say that you would have the elements on the port side of Sydney and you would probably use the boat to starboard and you if were going to station Sydney to achieve a down-sea run, you would be around on the port side of Kormoran, which enables you (a) to provide a lee for the boat, if you launched a starboard boat, which is the right-side boat, to provide a lee for it, but also to allow that boat to have a down-sea run and to get to the target vessel with the minimum of fuss and fatigue on the boat crew.

Q. Just to clarify and sum up, in that scenario you would go to the port side of Kormoran in order to put the sea on your own port side, to provide a lee for the launch of your starboard boat, and then send the boat down-sea towards the target vessel?
A. Yes, depending on the situation and what you are trying to achieve. In that situation there, to launch a boat and to achieve those two things - provide a lee for the boat and also to get the boat down-sea - Sydney would have to position itself somewhere here (indicating) on the port side of Kormoran.

Q. We will now return to our assumption that Kormoran is on 260 at 14 knots, so no longer stationary in the water. I now want to turn to the effects of the weather in relation to some of the tactical decision-making. We will start with signalling. We have heard some evidence to this effect already. Given a Kormoran course of 260, a speed of 14 and a relative wind across the deck of 020, or relative green 120, 125-ish, assuming Sydney is at relative green 170 on Kormoran, how easy would it be to read Kormoran's signal flags?
A. I will just put on a secondary diagram. That's in the green 170 position. From that direction there, you would see the flags, and also, depending on range - I haven't got a range component of where Sydney is, where the flags are - but outside 5 nautical miles it gets pretty hard to read flags anyway. So, based on that diagram, if that range is greater than 5 nautical miles, there is an issue; there will be some difficulty in reading flags.

On the angle, they would not get a full view of the flags, but the angle of the flags on that relative wind - they would see a certain percentage. I suppose 50 to 60 per cent of the flags would be seen. That's just a pure angle. Remember, range is also a big factor in this as well.

Q. Noting that all the different signal flags have different combinations of colour, would that 50 to 60 per cent of the flag be enough for you, with certainty, to read those flags, assuming it was a clear view of those flags?
A. For an experienced operator expecting a flag hoist, yes, depending on what flags they had hoisted. It wouldn't be easy, but you could discern those flags based on that

angle. Remember, I'm not sure what range Sydney was at, but, based on that angle, with an experienced operator on the bridge, the yeoman or whatever, you could. It wouldn't be easy, but you could do it from that angle.

Q. I would now add a couple of complicating features, and we will just bring up two photos quickly. Could I bring up, firstly, photo COI.006.0015.

THE PRESIDENT: Whilst you are doing that, I will mark this image as exhibit 115.

EXHIBIT #115 CAPT BAIRSTOW'S DRAWINGS AND CALCULATIONS

CAPT McLAUGHLIN: Q. This is a close to beam-on view of Kormoran and you can see the superstructure where the bridge was and the funnel just aft of the bridge. I would now like to call up a second photo which gives a quarter view. Actually, before we do that, there is some evidence before the COI from a Kormoran source that the yeoman hoisted his response flags, his hoists, up on a stay situated aft of Kormoran's bridge but forward of the Kormoran funnel. Would you just bear that in mind for a moment.

Could I now call up photograph COI.006.0020. This is a picture of Kormoran. What relative perspective would you call that, if you were looking at Kormoran?
A. That would be the starboard - I would be on Kormoran's starboard quarter.

Q. So Kormoran's starboard quarter. So this would not be too unlike a view that Sydney may have had if she was on Kormoran's starboard quarter or just fine on Kormoran's stern?
A. Yes. But the range component here - that's quite close.

Q. That's quite close, yes. What would you estimate the range there to be, just in rough terms?
A. 1,000 yards.

Q. So if Ahlbach, the yeoman, is hoisting his response flags aft of the bridge but forward of the funnel, from this position, would that make it more complicated or easier to read those flags?
A. By looking at this quarter view, there are quite a few

obstructions, if you are going to have flags on the starboard side. Obviously you have the bridge forward but you also have the funnel. Now, I'm not sure where the actual halyards - which are the lines that the flags are secured to - are, but there are some obstructions there which could affect the vision that you would have of the flags. Remember, I can see that there like that, at that range, but if you increase the range, you increase the difficulty.

Q. Would the presence of the funnel cause any further issues - heat haze or smoke or anything like that?
A. Well, by looking at that, there would be an exhaust and there would be quite a bit of heat. I don't know if they were blowing smoke or whatever, but there were quite a lot of factors, just with the funnel and the proximity of the heat source and haze to that starboard side where the flags are, that would have an impact on your ability to see those flags.

Q. Just to add into this the position of the sun, how would that also mix into this combination of factors?
A. By looking down at that and onto the diagram, the sun would be beyond the ship and you are looking up-sun, into the sun, or the area where the sun is, and also that sun is in a similar position to where the flags may have been flying, that would certainly make it another order of difficulty in discerning what those flags are.

Q. Could we bring up the template again, please. Before leaving this aspect of signalling, given all of these factors, where could a ship perhaps read a hoist from Kormoran more clearly?
A. If the relative position of the flags - you could either be ahead, or that quarter position by an angle could provide 50 to 60. If you wanted to increase that, obviously, you would want to come further around to port, from Sydney's perspective, so further around to the quarter on Kormoran, or you would go ahead and read them from forward. So what you are trying to do is to get the angle. If you can imagine the flat-screen TV over there, depending on what angle you are - obviously if you are facing it, it is easier to read the TV; the more acute your angle, the harder it is to discern. So Sydney would take into account those considerations. Further down the quarter or to go ahead - I see those as two the two options.

Q. Before moving on from the ability in such conditions to read signal flags, you spoke of range. Could you please just reiterate what the range bracket is within which signal flags could be read in similar weather conditions?
A. In these weather conditions, if you look at where the sun is, if you take it to a normal, reasonably clear day, as a rule of thumb, 5 nautical miles is good. You would want to be inside 5 nautical miles to see flags quite clearly. Outside of 5 nautical miles it starts getting harder. Taking into account, if you look there, the relative position of the flags and where the sun is and the haze of the funnel, where the position of the flags is, range would definitely be, I would consider, a factor of how you would read the flags. Between 2.5 and 5 nautical miles - 5 nautical miles is getting out towards it, which is 10,000 yards, give or take.

Q. At this point, we will bring up in succession four contemporaneous documents from the World War II period and I will ask you to read some sections from those. Could I call up, first of all, UKAA.002.0036 at page 0043 and could we scroll down to the bottom paragraph, "Communication with Suspects". This is from an Admiralty document of 1943/1944, which is "Draft Tactical Guidance on Disguised Enemy Raiders and Blockade Runners". I will read the relevant section:

> Communication with Suspects
> A problem that perpetually arises is that of communication with a suspected ship. Though many merchant ships have shown a most satisfactory efficiency it is a hard fact that visual signalling cannot be guaranteed outside four miles, and many Commanding Officers have felt a great temptation to close to a satisfactory visual range after a tiresome period of frustration.

Would this accord with your general appreciation of visibility?
A. Generally, yes.

CAPT McLAUGHLIN: I tender that document.

EXHIBIT #116 DOCUMENT BARCODED UKAA.002.0043, PAGE FROM A 1943 ADMIRALTY DOCUMENT BEARING THE TITLE "DISGUISED ENEMY

RAIDERS AND BLOCKADE RUNNERS: CONDUCT OF HER MAJESTY'S SHIPS"

THE PRESIDENT: This, of course, is after the event?

CAPT McLAUGHLIN: Yes, sir.

Q. Next we will call up UKAA.010.0084 at page 0088, at the bottom of this page. Sir, this document is a report of proceedings by HMS Dorsetshire, dated 2 December 1941. I will just read the relevant part from paragraph 28, on the next page:

> British and Allied Merchant Ships, independently routed, are frequently met at sea often hundreds of miles from the position where they ought to be on the plot. Their identity can only be established by signalling, which is extremely difficult outside a range of 8 miles. In these circumstances the temptation to close to signalling distance (5 miles or less) is very great, especially if the course of the vessel to be identified is in the opposite direction to that on which the cruiser wishes to advance, and the more so if daylight is running short.

Would this, in general, accord with your view, CAPT Bairstow?
A. Yes.

EXHIBIT #117 DOCUMENT DATED 2 DECEMBER 1941, REPORT OF PROCEEDINGS OF HMS DORSETSHIRE

CAPT McLAUGHLIN: Q. The next document is NAA.074.0064. Can you read that, CAPT Bairstow? I have a printed copy if you need it.
A. Yes, just paragraph 1?

Q. Yes. I will read paragraph 1. This is a minute paper dated 31 December 1941, related to the safety of merchant shipping. It says:

> ... I also concur that it is sometimes difficult to read flags at distances of

> one mile. It is also difficult to read daylight flashing lamps if the ship is "up sun". These are exceptional cases and I consider that to be able to read flags at even 3 miles is a step in the right direction.

Again, would this accord with your views and experience?
A. Yes.

CAPT McLAUGHLIN: I tender that document.

CMDR RENWICK: Might I inquire as to the author of this document?

THE PRESIDENT: Somebody signed it "for the DSC". I can't read the author's name. It looks like JAS Braum.

CAPT McLAUGHLIN: I guess the only link we can make is that this is a document in response to the next document which we will bring up, as to which we can determine the author. These are RAN documents.

CMDR RENWICK: Yes. I accept that.

THE PRESIDENT: The document dated 31/12/1941 signed "for the DSC", subject "Safety of merchant shipping", barcoded NAA.074.0064 will be exhibit 118.

EXHIBIT #118 DOCUMENT DATED 31/12/1941 SIGNED "FOR THE DSC" WITH THE SUBJECT "SAFETY OF MERCHANT SHIPPING", BARCODED NAA.074.0064

CAPT McLAUGHLIN: Q. Finally, could we bring up document NAA.074.0065. Again, this is paragraph 1. This document, sir, is the minute of 30 December 1941 from "DOD", referred to in the previous document. This document is signed by, as he would have been then, CAPT Dechaineaux. Leaving aside the reference, it says:

> It is sometimes very difficult to read a flag hoist at as little as a mile. The whole purpose of suggesting a daylight lamp is that warships can identify ships from a range at which they are not tactically in a disadvantageous position, ie outside 5 miles at least.

THE PRESIDENT: That document was written, if I recall correctly, to address a response to a proposal by CAPT Dechaineaux that all merchant vessels be fitted with daylight lamps so that they could signal from, I think, 10 miles.

CAPT McLAUGHLIN: We tender this document.

EXHIBIT #119 DOCUMENT DATED 30/12/1941 BARCODED NAA.074.0065

CAPT McLAUGHLIN: Q. I want to now move on to weather conditions and the effect they would have had on launching a boat whilst under way. We've talked previously about launching a boat towards a stationary vessel. There is some evidence before the COI from a Kormoran source that Sydney actually approached on Kormoran's starboard quarter, that it may have had a port side boat outboard for launch. Could we bring up the template, please. In weather conditions such as these, and given the course of both ships on approximately 260, how difficult would it have been to launch a boat on the port side, noting a speed, from Kormoran sources, that she was doing 14 knots, and Sydney, in order to maintain station on her, would have had to have been doing what speed?
A. She would have to be doing faster. Without working out, I would start at least 5 knots more or 10 knots more. You would want a definite speed advantage if you were trying to close. In terms of the boat, I would just go back to the basic principles, to provide a lee to protect the boat and its crew, and by protecting the boat, not just it banging against the ship's side, but actually the ability to launch the boat safely. In those conditions there, if a boat was out on the port side, it would not be providing a lee and, in those conditions there, yes, you wouldn't be providing a lee. So unless there was some other reason why you would have a boat out on the port side, that would not be the way that you would launch a boat.

THE PRESIDENT: Q. You certainly wouldn't launch a boat at 25 knots?
A. If you take into account the ship's speed - and I'm not sure on what procedures they used in those days - going through the water at a rate of knots would make it very, very hard to launch a boat. In fact, I would hazard to say

at 20 knots you wouldn't launch a boat, period.

CAPT McLAUGHLIN: Q. I now want to move on to the weather effects on timing and remaining daylight. There is some evidence before the COI from Kormoran sources that by 17:15 Sydney had closed with Kormoran and had by then commenced signalling Kormoran to establish identity. Now, if sunset was at 19:05, and it was to be a moonless night. What impact would this have on a command appreciation of any situation?
A. The command appreciation in this case, noting that identification would have been done by visual means, the light starting to fade would certainly be a factor you would have to consider. The timing and the direction of the sun and also what range the two ships were apart would impact on the time remaining to complete the identification evolution and whatever evolutions might follow from that. So the setting of the sun would have been a time factor in terms of the decisions that would have to be made to conduct the evolutions, initially, of identification and whatever might follow.

Q. So identification would have been a preliminary, would it, to have determined the next step that you would have had to have taken in the remaining daylight?
A. Yes. Not knowing what Sydney's ROE was, but I take it there that Sydney was trying to identify that vessel, so certainly after identification has been resolved or not resolved, but at least you have tried to identify, then that would certainly bring into account other actions, I would assume, after that.

Q. There is also some evidence before the COI that it was routine for German raiders, indeed, most merchant vessels, to steam at night not burning their navigation lights. Given the evidence as to the darkness of the night that was approaching, how easy would it be to maintain contact with or to maintain track on such a vessel like the Kormoran, for example, on a moonless night, given, of course, that Sydney had no radar?
A. It would have been quite hard. I think the ship would darken themselves. There are many tactical reasons why you would do that. Also, another reason to actually darken the ship, whether you have your navigation lights on or not, is to make sure that if you have your navigation lights on and you darken your ship, then all you see is the navigation lights, and under the international rules, whatever they

were back then, you could determine the aspect of a vessel. If you turned those navigation lights off and you were darkened, it would be pretty difficult to maintain a track of that vessel visually, without the aid of radar.

Q. So not only would it be difficult just to see or detect the vessel, but are you saying that, without the nav lights, determining the aspect and, therefore, what her course and speed was so that you could try to match that in order to not lose contact, would be more difficult?
A. That would be very difficult, as I said, without the aid of radar, noting that navigation lights are there so that other ships, at night, can determine the aspect and, therefore, avoid collision.

Q. By "aspect", you are referring to a ship being able to detect what angle they are on the bow or on the stern?
A. Yes, relative to you. Relative to you.

Q. Finally, then, I want to turn briefly to the issue of weather effects on discerning silhouettes. You have provided some evidence on the ability to read flags and just briefly on flashing light from up-sun. Given a sea state of 3 to 4 and given Kormoran's position relative to the sun, and, again, assuming Sydney's position is somewhere between the starboard quarter of Kormoran and right astern of Kormoran, how easy or difficult would it be to discern a clear silhouette, noting the position of the sun, amongst other things?
A. It would be difficult to discern the silhouette, but also, from the perspective of the aspect of the vessel, when you look at the beam-on picture of the vessel, it tends to stand out. Once you start getting that angle, when the angle gets a lot more acute, it is hard to determine the actual positioning of the masts, the funnel, et cetera, of that ship. So if you take into account heading into the sun, the haze, looking up-sun, so it is hard on the eyes as well, there would be some elements of difficulty in determining the visual aspect - sorry, not the aspect, but the silhouette of that vessel.

Q. In your experience, is it easier to discern a silhouette if the sun is behind you as you are looking towards the target vessel, or with the sun behind the target vessel, illuminating the target vessel?
A. In terms of the conditions there, a visual recognition, if you are trying to discern what it is,

I would agree that it would be harder with the sun behind it to discern features, and the features that they would take into account then to discern what sort of vessel it is, yes.

CAPT McLAUGHLIN: That concludes my questioning of CAPT Bairstow, sir.

CMDR RENWICK: I have a couple of questions, sir, if I may.

<EXAMINATION BY CMDR RENWICK:

CMDR RENWICK: Q. Could we have brought up COI.006.0018, the picture, please. Sir, you will recall giving some evidence about this picture of Kormoran?
A. Yes.

Q. I think at T1261, line 41, you estimated that the rough distance to the ship in that picture was about 1,000 yards or so - approximately?
A. Yes, approximately. Probably less than that. Yes.

THE PRESIDENT: If she is oiling, it is probably 400 metres.

CMDR RENWICK: Q. Would you keep that image in your mind, sir. Could I ask that BURN.001.0014 be brought up, please. This is the map taken from the Official War History. If you just look at that, sir, I would like you to assume that that map accurately depicts the relative positions, at the designated times, of the Sydney and the Kormoran. We will need to zoom out a little bit so that CAPT Bairstow can see the scale in the top right-hand corner. This is from the second volume of Gill in the Official War History, the Australian Official History.

You can see the approximate scale up at the top right-hand corner. If we can close in a little bit, then, my question is this: would you agree with me that, assuming that that map and the times are accurate, the view of the Kormoran that you have given evidence about on the photo that I have shown you a minute ago would be the view that the Sydney would have had at approximately 5.15pm?
A. At 5.15, it looks like the angle would be - just assuming that this diagram is correct and they are both heading in roughly the same direction, that probably would

put Sydney a bit further around to starboard on the quarter.

Q. So it would be a little earlier on, perhaps closer to 5pm, would it?
A. I would have to have another look at the ship again.

Q. Yes. Could we go back to the photo, please.
A. I reckon that's probably green 150, green 160.

THE PRESIDENT: Q. Did you say green 150?
A. Yes, I'm just trying to estimate what her ship's head is relative to me, sir. I mean, that's on the quarter, but within plus or minus 10 degrees either side. Yes, roughly, on the quarter. So if we go back to the diagram.

CMDR RENWICK: Q. Yes. Could we go back to the map, please. So as far as the bearing goes, you would say it is closer to 5pm than 5.15pm?
A. Or before, yes. To me, it doesn't look like that would be 5.15pm, so it would be earlier than that and 5 looks closer to it than 5.15.

Q. But as far as the distance goes, the map depicts the Kormoran further away from the Sydney than on the photo?
A. Oh, yes. If I use the scale, it is probably 4 miles, I think, at 5pm, and obviously more than that as you go earlier in time, to 5 miles.

Q. At 5.15, it is not that close - it is not 1,000 yards either, is it? It is much further than that?
A. By the scale it would be a mile and a half, two and a half miles, which is sort of like 3,000 yards, give or take.

THE PRESIDENT: No, it is not.

CMDR RENWICK: It is further than 1,000 yards is the proposition.

THE PRESIDENT: Not very much, as I would read it. Putting a pen against it, at 5.15, I would have thought on that scale it is about --

THE WITNESS: A mile? A mile, a mile and a half, so 2,500 yards.

CMDR RENWICK: Thank you, sir.

CAPT McLAUGHLIN: Sir, before concluding here, I have been remiss at not tendering the Beaufort wind scale.

THE PRESIDENT: I shall mark a blank copy of the ship's log which contains the various sea states and Beaufort scales as exhibit 120.

EXHIBIT #120 BLANK COPY OF SHIP'S LOG CONTAINING VARIOUS SEA STATES AND BEAUFORT SCALES BARCODED RAN.002.0139 AND FOLLOWING

CAPT McLAUGHLIN: May CAPT Bairstow be excused?

THE PRESIDENT: Yes, thank you very much, CAPT Bairstow.

<THE WITNESS WITHDREW

THE PRESIDENT: Is that a convenient time?

CMDR RUSH: It is, sir.

THE PRESIDENT: Very well. We will take a short adjournment.

SHORT ADJOURNMENT

CMDR RUSH: Sir, it is proposed today and tomorrow and then later on in January to call some people who have provided submissions to the Commission of Inquiry and who put forward alternative theories.

I thought it might be of benefit, sir, to give some background in relation to theories, conspiracy theories and others, that have come forward since the loss of Sydney on 19 November 1941.

When one considers it as a whole, the loss of Sydney has provoked extraordinary controversy and debate. Sensational claims have been put forward. Fraudulent accounts, fraudulent documents and even fraudulent artefacts have been produced. The sensational has tended to overwhelm sensible and reasoned discussion.

The effluxion of time, the absence of the wrecks and the absence of the battle site have provided fertile ground