

GROUNDING OF "NELLA DAN"

INVESTIGATION BY C.W. FILOR AND T.M. FITZPATRICK

INTERVIEW OF ARNE JACOB SORENSEN

Conducted in the presence of: His Excellency the Ambassador
for the Royal Danish Govern-
ment

Mr T.O. Cogan (Royal Danish
Consul General)

Mr J.K. Bowen, O.B.E.
(representing J. Lauritzen A/S
[owner of the "Nella Dan"])

HOBART, 9.30 A.M., TUESDAY, 29 DECEMBER, 1987.

Recording and transcription by: CONSEC SERVICES
22 Murray Street,
HOBART 7000

Telephone: 236073

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN

CAPTAIN FILOR: This is a preliminary investigation conducted by officers of the Department of Transport, being Captain C.W. Filor, Director Ship Operations, Canberra and Captain T.M. Fitzpatrick, Senior Surveyor, Tasmania, conducted at Hobart on the 29th December, 1987 into the circumstances attending the grounding of the Danish Antarctic supply vessel "Nella Dan" at Macquarie Island on the 3rd of December, 1987.

1 May I have your full name and address, please?

INTERVIEWEE: My name is Arne Jacob Sorensen and my home address is Tommerupvej 253, DK-2791 Dragor, Denmark.

2 CAPTAIN FILOR: What qualifications do you hold?

INTERVIEWEE: Well, I have a Mates and Masters Examination and then I have acquired a Master's Licence in Denmark.

3 CAPTAIN FILOR: Do you have any special ice qualifications?

INTERVIEWEE: Well, I have a training as a radio telephone operator and then I have passed various courses in radar operations and meteorology and then the normal experience that I have acquired during the years.

4 CAPTAIN FILOR: So you have no specific ice - qualifications, it's just experience?

INTERVIEWEE: Yes, exactly.

5 CAPTAIN FILOR: What was your position on the 3rd of December 1987? What was your job, or what was your occupation on the 3rd of December?

INTERVIEWEE: Any specific time?

CAPTAIN FILOR: At that time, were you master of the "Nella Dan"?

INTERVIEWEE: Yes.

6 CAPTAIN FILOR: And how long had you been master before it?

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

INTERVIEWEE: Well, I have been master for - during this season - since July the 20th and then for the previous - four, five seasons I have been captain on board since 1982.

7 CAPTAIN FILOR: And before that, were you a mate or aboard?

INTERVIEWEE: I've been a chief officer on board from '78 to '80 and I've been apprentice originally from '70 - '67.

8 CAPTAIN FILOR: So you have something like ten or eleven years experience of the "Nella Dan"?

INTERVIEWEE: Rather, eight or nine.

9 CAPTAIN FILOR: Eight or nine. I'll show you an extract from Lloyds Register. Could you just look through, please, and confirm that those are correct?

(Extract shown to Interviewee)

INTERVIEWEE: Looks reasonably correct - a few discrepancies - the ship has been rebuilt during the years so that we don't have 42 berths for passengers, we have 50 and the length overall has increased by a couple of metres by installing a gantry crane aft, but it's just minor things. Otherwise it's correct.

10 CAPTAIN FILOR: Thank you very much. Could you, perhaps, just tell us in your own words now, perhaps starting from the time you left Hobart, about the voyage which ended up on the 3rd of December?

INTERVIEWEE: Yes. Well, I don't have all dates so I'll just have to do it myself with the ship's log. We, we would have left Hobart on the 27th of November and on our way to Macquarie Island we carried out oceanographic work by stopping at all times, that's passing every degree of latitude and taking so-called hydrographic stations or oceanographic stations, that means stopping the ship and letting the sounder out over the side - port side of the ship and letting it down to the bottom of the sea taking some water samples and measurements on the way, so that way the voyage took somewhat longer than - otherwise, normal steaming time is three days and this - on this occasion - took a day or two extra - we would have

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

arrived on Macquarie Island on the 1st of December and we anchored 5 minutes past 2 in the afternoon and we anchored in Buckles Bay in the usual position where we were anchored during the years and the way that we find out that we do anchor in that position is that we steam in towards the transit marks which are here on the shore - two triangles with ~~their~~ fluorescent lights, around ^{THREE} here - you may see them on one photograph - you steam in ^{on} in the true heading of 296 - of course, bearing in mind that there might be some - some wind or current or whatever so that you keep those transit marks in line, then you warn the mate on the fo'c'sle that just before you see three rocks to your starboard in line, tell me please, and then I'll stop the ship and then exactly when these three rocks - this one, that one and that one - are in line then we are in the right anchorage position and that is then when the bow is in that position, so when the mate says, "Right now the rocks are in line," so we'll let go, provided I am sure that the ship is stopped. And, well, we've done this quite a few times so that is what happened on the 1st of December that we dropped the anchor exactly, I think, at the right spot.

^{2.} One or two transit marks aren't right. And this anchorage is, of course, the position has been worked out during the years that it is the best anchorage there - all circumstances taken in consideration, we have been there many times and the holding ground appears to be sand with some stones in it and it has been good for us so far until the 2nd. It has happened a few times that the ship has drifted out to sea in a strong westerly wind and I have always considered it so that if there is a strong westerly and the anchor doesn't hold, once it gets started it is so that you drag the anchor downhill and as soon as you drag it downhill it will lose its grip and you don't get hold of it again because you're getting into deeper waters, while it is the reverse if you have an easterly then you try to pull it uphill and that's quite a lot more difficult and for that reason I've never been terribly worried with an onshore wind - it's not saying that I like it and at times I have pulled out because of an easterly wind, but if you have had operations on - we have stayed there a number of times - and the reason being as I told you the holding ground and pulling uphill the anchor usually holds very well. The following, well, the remainder of the 1st of December we discharged using the Army's amphibious LARCs and we ^{on} carried ~~out~~ with that on the 2nd of December and the first part of the 3rd of December and that's normal

Grounding of "Nella Dan"

Investigation by C.W. Filor and T.M. Fitzpatrick

Interview of ARNE JACOB SORENSEN continued

routine by discharging the ship this way and they go in at more or less this point here (indicating). The other task that we had was to pump in the cargo of oil of which we had 230 cubic metres on board, which is a year's supply for the station. That had to be pumped ashore using a pipeline which is on a hose reel on the station, the end of the pipeline is pulled out by a LARC to the ship, always pulling alongside and experience shows that on Macquarie Island the prevailing wind is the westerly one; and then I prefer to pump the oil while I know that the wind is steady since you don't want the fuel hose wrapped around the ship, since that's a real nuisance, well, you may have to shift it or you may have the risk of breaking it - the accidental spill of oil, and you don't want that, of course. So the first couple of days we looked at the situation and it didn't look like a westerly - we hoped for a change to the west but it didn't eventuate. We had quite a strong high pressure ridge going south from Australia towards Macquarie Island. At the same time there was quite a strong low just south of New Zealand and those two weather systems together made a southerly wind and knowing that when the low pressure system moved on towards the west we would have eventually the westerly wind but it did not happen for the first couple of days, so on the morning of the 3rd it was still in the south and when I decided after discussing the situation with my chief officer that we would start pumping the fuel as it looked like it was not really moving very much - it was ^{the} low pressure - so we expected to have a southerly all day and at that time of the morning it was force 5 or something like that, and so we prepared for the oil pumping and got that going some time in the morning which you would be able to see in the log exactly which time it was. So, that got going, and some hours later the wind started picking up and we had to stop discharging by the LARCs. As you would know, on an open roadstead, if the wind picks up and you have a bit of swell then it is not easy to work a small craft alongside the ship if you have that moving up and down in the swell, and you have at the same time have a reasonably heavy load sitting on the cargo hook, at some stage you do not like it any more, then you have to stop. So that's what we did, some time in the morning. Then we carried on with the fuel pumping since that was hooked up and that sort of attends to itself. Of course there is an engineer looking after that, pumping the fuel ashore, and at all times there is one or two persons ashore at the so-called fuel farm - you might have seen

Grounding of "Nella Dan"

Investigation by C.W. Filor and T.M. Fitzpatrick

Interview of ARNE JACOB SORENSEN continued

in one picture, one odd picture there's a whole line of fuel tanks and they fill one after another - they dip the tanks and look that there is actually oil coming in, since if there wasn't then there might be something wrong, we could have an oil spill or what not. So, well, there is direct communication at all times regarding that. And during the day when it had increased in the morning to force 7 or so, it stayed like that, force 7 maybe 8, during the rest of the day, from a southerly direction, sometimes with some easterly in it. I looked at it yesterday - we haven't really looked at these things very much because we have been busy - trying to salvage the ship which we unfortunately failed in. And according to the book we had one entry of south-east, otherwise they are mainly south or south-south east and south by east, so that was how it remained for the rest of the day. And I would say that, I've been put the question once if we were worried about the situation, well, I wasn't worried. Of course, you are always concerned; if you are a navigator then your concern is the safety of the ship and if you are concerned, which you are at all times, then you try to evaluate the situation, judge the situation. Indeed you do that of course by looking at the movements of the ship in the waves and looking at the change and looking at the - that is the main thing of course, looking at the radars which, incidentally, are, or were, rather, brand new, so we put on plotting marks on the shore to see if the shore was moving or rather if the ship was moving; then of course putting on the variable range marker to see what the distance was to the shore and then lastly, but not leastly, of course, is that we use the transit marks, not these ones, since they wouldn't be - one of them of course would be used in conjunction with something else but it is of course with such - with a - of course not a very big ship, but still a smallish anchorage. It is so that if I have - that is what I forgot to mention that when we did anchor we had four shackles out - four shackles in the water - and it is so that if I have four shackles in the water, the swinging radius is 180 metres. And that of course makes it so that, even though he drops the ship's anchor in the transit marks, as soon as you swing around, the ship is not sitting in the transit marks so you had to use something else. So we used various other marks on shore on this occasion - a radio mast and, I believe, the edge of this hill, or maybe another hill in the background and you look at other things as well, maybe a hillock and a building.

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

That way you control that the ship is not moving. We discovered, of course, during the day that the ship was moving since you have the gusts in the wind, you have the lulls, and when you have the lulls the chain will slack and the ship will move forward somewhat. And then when you look at these transits that you have made up for yourself you say, oh well, now it's not as it was. So, what we did when the wind had steadied in the afternoon and was quite strong it was that we looked very closely at the best transit marks that we had found for ourselves and every time that we noticed that the wind was reasonably strong and the chain was tight we saw that these marks were the same as they were before. Of course in the meantime as described there was the outer line because the chain was slack, so that was the - I'd say the best way that we had of discerning that the ship was not dragging the anchor.

(Interviewee indicates frequently)

11 CAPTAIN FILOR: Yes. Would you like to go on or would you like to -----?

INTERVIEWEE: Depends on if you want to ask questions.

CAPTAIN FILOR: Perhaps we'll come back.

INTERVIEWEE: Yes.

CAPTAIN FILOR: We just need some initial points covered.

INTERVIEWEE: Yes.

12 CAPTAIN FILOR: You left Hobart on the 27th of November?

INTERVIEWEE: Yes.

13 CAPTAIN FILOR: Did you have a plan of the voyage?

INTERVIEWEE: Yes.

14 CAPTAIN FILOR: Now, between the time you left Hobart and the time you arrived at Macquarie Island, was any change made to that plan?

INTERVIEWEE: Yes, there was.

Grounding of "Nella Dan"

Investigation by C.W. Filor and T.M. Fitzpatrick

Interview of ARNE JACOB SORENSEN continued

15 CAPTAIN FILOR: In what way?

INTERVIEWEE: Well, these oceanographic stations that I described to you, some of them were aborted since we had a breakdown on a winch and that was just exchanged and there was another fault which I can't recall right now. But the last few stations on the voyage they were cut out and left for the return voyage so we arrived at Macquarie Island at least a couple of days before originally anticipated, I'd say probably three days before - I would say that we expected to arrive on the 4th of December. So it was changed.

16 CAPTAIN FILOR: Whose decision was that to change?

INTERVIEWEE: Well, the decision rests with the voyage leader or the expedition leader; of course he'll discuss the situation with me and he says that - he would explain that we are unable to do what we have planned to do so the only thing that we can do is doing it on the way back and there's not much discussion in that because it's - that's just facts and there's not a great hassle in that.

17 CAPTAIN FILOR: And this is consistent with the charter party?

INTERVIEWEE: Oh yes. Well, it's so that the charterer, the Antarctic Division in that case, is the Director's representative on board, the voyage leader, he directs the movements of the ship and I tell him if I believe I can carry out a task.

18 CAPTAIN FILOR: Whether it is safe to do so?

INTERVIEWEE: Yes.

19 CAPTAIN FILOR: Amongst the equipment in this marine science programme there's an echo sounder and data logger, you were aware of that?

INTERVIEWEE: Yes.

20 CAPTAIN FILOR: Where is the transducer for that, do you know?

INTERVIEWEE: Yes, that is under No. 1 hold - well in No. 1 deep tank there is a ~~copper~~ tank there where the transducers are stored. *COPPER DAM*

Grounding of "Nella Dan"

Investigation by C.W. Filor and T.M. Fitzpatrick

Interview of ARNE JACOB SORENSEN continued

- 21 CAPTAIN FILOR: Are all the transducers in the same place?

INTERVIEWEE: No, but the one that you mentioned, the hydrographic echo sounder, that is sitting in No. 1 deep tank. There are others, for other purposes, sitting next to the aftermost bulkhead in between No. 1 and No. 2 double bottom tanks.

- 22 CAPTAIN FILOR: So they're fairly close together?

INTERVIEWEE: Yes. Reasonably close.

- 23 CAPTAIN FILOR: Now you said you arrived at Buckles Bay at 1405?

INTERVIEWEE: Yes.

- 24 CAPTAIN FILOR: Who was in the anchor party?

INTERVIEWEE: It was the first mate, but I'd better describe to you that the Danish titles are, so that we have a chief mate, a first mate and a second mate, so that we don't confuse the first and the chief. So the first mate, Magnus Olafsson, was - well, I would have to admit I'm not quite sure, but I can just see it was on his duty - it could have been him - it could have been the chief officer, but I wouldn't be too sure, well in fact you could ask one of those since they would know. I can't recall.

- 25 CAPTAIN FILOR: Who else would be on the fo'c'sle with him?

INTERVIEWEE: It would have been - probably one of the ABs - well, it would have been one of the ABs which is probably Willy Pedersen who is the carpenter.

- 26 CAPTAIN FILOR: Just the two would have anchored the ship?

INTERVIEWEE: Yes.

- 27 CAPTAIN FILOR: And what was the weather like when you arrived? Do you recall?

INTERVIEWEE: According to the log - I had put it in as

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

a northerly force 6 which I must admit I can't recall

28 CAPTAIN FILOR: In fact we have records - I'll show you later on, from the meteorological station there at Macquarie.

INTERVIEWEE: Yes.

29 CAPTAIN FILOR: Now, you've described in detail the anchoring position and that is your normal position for every arrival at Macquarie Island. That's correct?

INTERVIEWEE: Yes.

30 CAPTAIN FILOR: Was that entered in the log book at any stage, that position?

INTERVIEWEE: No. The first mate has put in simply "in the transit marks".

31 CAPTAIN FILOR: If it wasn't in this one it wouldn't be in that one - in the Danish language-----?

INTERVIEWEE: No, no, not the position. He says just "in the transit marks" which, well, tells us the story because we relate to this chart.

32 CAPTAIN FILOR: I notice that in page 11 of your log book there when you were in Heard Island that in fact you do put a position in for Heard Island?

INTERVIEWEE: Yes.

33 CAPTAIN FILOR: That's your normal practice. Is it a different anchorage?

INTERVIEWEE: Well, Heard Island is - it is not so that we have - we don't visit Heard Island that often. In the last few years we have, but we haven't visited Heard Island so often that we have established any fixed marks like these, and for that reason I would put in an accurate position since then I will simply decide this is where I want to go, but on Macquarie Island we have been there that often that it has been established that this is the position, unless there is some other circumstances that would dictate that we'll do it otherwise, but then

Grounding of "Nella Dan"

Investigation by C.W. Filor and T.M. Fitzpatrick

Interview of ARNE JACOB SORENSEN continued

there's no need to put in a position because this is the one we always use.

34 CAPTAIN FILOR: All right, thank you. Just as a matter of a rough figure off the top of your head, how often have you been to Macquarie Island?

INTERVIEWEE: Well, it would have been around a dozen times - could be slightly more.

35 CAPTAIN FILOR: Again, staying at Heard Island in September or October, whenever it was, at page 12 again, I notice that you changed your anchor, or changed your anchor position?

INTERVIEWEE: Yes.

36 CAPTAIN FILOR: Why was that? Do you recall?

INTERVIEWEE: Yes, well, I believe we have done it several times, probably. On one occasion, the last occasion we were there the anchor dragged in Atlas Cove and we were slowly moving closer to the shore and that was in an anchorage of, I guess, of volcanic sand, and then when I noticed that the position was decreasing I pulled up the anchor and moved to the other bay which is Corinthian Bay. That may be the one that you are referring to, I'm not too sure.

37 CAPTAIN FILOR: The positions are quite different?

INTERVIEWEE: Yes; well, we moved to Corinthian Bay where I found better shelter.

38 CAPTAIN FILOR: Now, going back to Macquarie Island. Which anchor did you use?

INTERVIEWEE: The port anchor.

39 CAPTAIN FILOR: Is that standard to use that, or do you -----?

INTERVIEWEE: No. No. That was why - how I looked at it with the wind - I wanted the ship to swing - well, it was a northerly so it looked best to me to sit on the port anchor at that time. So I use either anchor.

40 CAPTAIN FILOR: What type of anchor is it?

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

INTERVIEWEE: Well, it's a standard patent anchor.

41 CAPTAIN FILOR: ~~Stopless?~~ STOCKLESS

INTERVIEWEE: ~~Stopless~~, yes. STOCKLESS

42 CAPTAIN FILOR: And the size of chain, do you know offhand?

INTERVIEWEE: It's - I believe it was put in that Lloyds there - in the very bottom, somewhere?

CAPTAIN FILOR: Oh, that's right.

INTERVIEWEE: Yes.

43 CAPTAIN FILOR: And the position that you have shown us on the chart in fact is the position where the anchor is dropped?

INTERVIEWEE: Yes.

44 CAPTAIN FILOR: And you have, you said, 180 metres swinging radius?

INTERVIEWEE: Yes.

45 CAPTAIN FILOR: And that swinging radius is the overall length of the ship - that's to the after end of the ship, not to the bridge?

INTERVIEWEE: Well that's from the anchor to the stern of the ship, then that would draw a circle with a radius of 180.

46 CAPTAIN FILOR: Right. So I'll just show you - it would be that sort of (indicating) - I'm now referring to a copy of the chart you sent me -----

INTERVIEWEE: Yes.

47 CAPTAIN FILOR: This sort of range. That is roughly 180, I think, it is a bit less actually.

INTERVIEWEE: Yes, well, the circle would have to be centred round the anchor.

Grounding of "Nella Dan"

Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

CAPTAIN FILOR: Right. So in fact it's around this circle here (indicating).

(Interviewee shown chart)

INTERVIEWEE: Yes.

48 CAPTAIN FILOR: Did you have any method of showing whether the anchor brake was holding?

INTERVIEWEE: Yes, we put in a - well, the standard practice is that we put in a rag in one of the links on the windlass leading down to the chain locker so that this part of the chain faces the bridge and if the rag disappears it has either blown away or the chain has given away, well, the break would have given way and slacked out some chain. *BRAKE*

49 CAPTAIN FILOR: And were you satisfied that the ship had been brought up properly to the anchor?

INTERVIEWEE: Yes. Well, usually I - when I do drop the anchor I just stop the ship by reversing the pitch of the propeller and then stop the ship and giving the ship a little stern way and that way when the anchor is dropped I will let out the chain and when we have the agreed length out they will ~~break~~ it off and then they will check that it is actually holding. *BRAKE*

50 CAPTAIN FILOR: Now, was the starboard anchor ready to drop at any time?

INTERVIEWEE: Oh yes, it's ready at all times.

51 CAPTAIN FILOR: And it would drop from the pipe? You didn't have to walk it back?

INTERVIEWEE: Well, usually we walk it back, but you can drop it from the pipe.

52 CAPTAIN FILOR: And you've done that before, have you?

INTERVIEWEE: Oh yes, yes, often. It's just, if you have time to prepare it you walk it out just to be sure, but you can easily drop it from the pipe.

53 CAPTAIN FILOR: Now, looking at photographs, and this

Grounding of "Nella Dan"

Investigation by C.W. Filor and T.M. Fitzpatrick

Interview of ARNE JACOB SORENSEN continued

one particularly, I notice that the starboard anchor wasn't walked back and you were quite happy that it would go?

INTERVIEWEE: Yes, oh yes. Well, the reason is that if you are sitting on a roadstead you would have the anchor swinging back and forth and bumping on the ship's side, so you don't walk it back unless you prepare for dropping it, and there's - well, there's - whenever - it will fall from the pipe.

34 CAPTAIN FILOR: Did you consider at any time using two anchors?

INTERVIEWEE: I really didn't at that time, but we have considered that several times, and it has been done by my predecessor and he lost an anchor on Macquarie Island for that reason and for that very reason I'm not very keen on it, since at times of year - wind does change and you can easily get the chains twisted and when it happened to my predecessor he had tied a knot on it, and he couldn't get it up and the wind picked up, so for that reason I am not really very keen on it.

35 CAPTAIN FILOR: Do you know what the ship's draught was on arrival?

INTERVIEWEE: It would be very close to our draught on departure, anyway, since we hadn't done anything.

36 CAPTAIN FILOR: Hobart. And the "Nella", did she normally lie head to wind when at anchor?

INTERVIEWEE: Yes. The draught would have been an even ~~NEEL~~ five metres and 80.

37 CAPTAIN FILOR: In Buckles Bay was there a tidal stream at all?

INTERVIEWEE: There is a tidal stream, yes, which follows the coast. It's not very obvious. If you have wind it doesn't really affect the ship. If there is little wind then you notice the tidal stream.

38 CAPTAIN FILOR: You were safely at anchor, then, and what navigation equipment was running on the bridge, do you know?

Grounding of "Nella Dan"

Investigation by C.W. Filor and T.M. Fitzpatrick

Interview of ARNE JACOB SORENSEN continued

KRUGG

TRUE

INTERVIEWEE: We would have the two radars running, which are the Krugg Atlas radar - through motion radars - and we would have - well, at least one 3 cm radar would be running. I would not recall if the 10 cm one would be running at that time. It would - could be possibly on standby. You would have an echo sounder running which has - we can stop the paper roll and then just have a digital read-out which shows at all times the depth in - well, in digits how many metres below the keel. That is running all the time. And that would really be the lot in the way of navigation equipment. Of course the satellite navigator is running all the time, too, but it is not of very great importance for us since you don't use it when you are that close to land and in this area.

59 CAPTAIN FILOR: Did you personally or do you know that your officers checked the echo sounder frequently?

INTERVIEWEE: Yes.

60 CAPTAIN FILOR: And if there was a reduction in depth, what sort of a reduction in depth would cause you some concern?

INTERVIEWEE: Well, it would cause concern if it wasn't consistent with what I expected from - well, from the circle that you drew on your copy of the chart. If it wasn't consistent with what I expected to find within the turning circle, then that would raise my concern, and I would try to figure out what is the reason for this.

61 CAPTAIN FILOR: And when you anchored what depth of water did you anchor in?

INTERVIEWEE: Well, according to this, it is eight fathoms, so it is pretty consistent with what I recall, around 10 to 11 metres below the keel.

62 CAPTAIN FILOR: Plus another five metres for your draught?

INTERVIEWEE: Yes. Plus another five metres, yes.

63 CAPTAIN FILOR: Now, when you are anchored, do you give any specific instructions to the anchor watch?

INTERVIEWEE: Well, I don't give any specific

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

instructions. They follow the standard routine that we have set up. There are plenty of orders made up by the company, and they are stuck in the order book, and then we have all these standard routines which are made up by IMO, and these are the standing orders on the bridge, so I don't give them any particular orders at the time. I discuss the situation with them to satisfy myself that they really do what they are expected to do according to the orders. That is, in my opinion, more important than actually telling them - if I am convinced that they do the right thing, that satisfies me.

64 CAPTAIN FILOR: And did you have confidence in your officers?

INTERVIEWEE: Yes, certainly.

65 CAPTAIN FILOR: And you have sailed with them for how long?

INTERVIEWEE: Well, the chief mate, yes, well, I probably have had him - this is probably the fourth season, I would say, and the first mate, that is the third season, while Anders, the second mate, it was the first season he has been there.

66 CAPTAIN FILOR: So you were saying there were written standing orders issued by the company?

INTERVIEWEE: Yes. Which applies to all the ships.

67 CAPTAIN FILOR: And do they sign them that they have read them?

INTERVIEWEE: No, they don't.

68 CAPTAIN FILOR: But they're there. Do you have your own standing orders at all?

INTERVIEWEE: No - well, it's not made up - I may have contributed with a couple of points. We had, on the "Nella", elaborated a little on these standing orders - put in a few more points, since it is quite a - it was quite a particular ship with many strange innovations, and for that reason we had put in extra points.

69 CAPTAIN FILOR: What does that cover? That's the scientific side?

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

INTERVIEWEE: No, no. There are specific instructions for that apart from the standing orders. No, it's mainly with the engine controls and the fire alarms and other things which are not quite - not all of them quite the same as the other ships, but the main thing being the engine control which - well, maybe I should describe to you how this - how it actually works. We have an ordinary, old-fashioned engine room telegraph which works in the way that all engine room telegraphs work, then there is another one which looks like an engine room telegraph but that is actually the bridge control system, and one handle is controlling the main engine and the other handle is controlling the variable pitch propeller, and it is then so that when the pumps - the hydraulic pumps - are running, I can control the pitch from the bridge at all times. When we want to start running with the engine it is so that there is rung standby on the engine room telegraph, which indicates now the main engine has started, and that would either be an order from me or it could be an agreement from the engine room if I have 'phoned them and said please start, they would put it on standby or if I ordered them to start I would put it on standby, and it is simply a sign now the main engine has started. And then they run it as long as they wish for whatever purpose and depending on the situation and so forth, to heat the engine up. And then the lever - the operating lever - of the main engine is interlocked with the bridge control system by putting in an interlocking pin. When that is put in they ring full ahead on the engine room telegraph and that tells me that now the control is on the bridge, so it is a combination of the two. Of course, the actual control is in my bridge control system, but the messages then go via the engine room telegraph.

70 CAPTAIN FILOR: Did you have any special emergency procedure? If you wanted the engines in a hurry was there anything laid down?

INTERVIEWEE: No, there wasn't. There was just a standard procedure put up which was printed both on the bridge just next to the bridge control and in the engine room just next to the starting handle.

71 CAPTAIN FILOR: These were the arrangements, then, when you were anchored?

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

INTERVIEWEE: Yes.

72 CAPTAIN FILOR: The arrangements you have described were the normal arrangements, when you were at anchor, for engine readiness?

INTERVIEWEE: Yes, well, the - of course it always depends on the circumstances. At anchor there or moored or anchored in the Antarctic the agreement is always with the chief - between the chief engineer and myself that he says that he will be able to start the main engine in less than five minutes - not more than five minutes - and for that reason he will have the hydraulic pumps for the variable pitches running at all times, and then the lube oil pumps are running also and the cooling water pumps are running, so it is, as a matter of fact, a matter of venting the main engine cylinders, just blowing air through just to make sure there is nothing wrong, and then they can start immediately. In an emergency they could forget about the venting and just take the risk that there could be a small leakage of oil sitting on the top of the piston and then just start, and that is - well, that really is so that when he is there he is able to start. So it is not a matter of the engine, it is a matter of the man, to have him there. Then it's started.

73 CAPTAIN FILOR: But the chief engineer would have to be there, you say?

INTERVIEWEE: Well, not the chief engineer.

74 CAPTAIN FILOR: An engineer?

INTERVIEWEE: An engineer, yes.

75 CAPTAIN FILOR: How often did you receive weather forecasts?

INTERVIEWEE: I wouldn't recall how often I received forecasts. Sometimes they read out forecasts from the radio station on Macquarie and on those particular days I simply can't recall whatever they may have told me, but apart from that we picked up the faxed charts from the Met Bureau in Melbourne, and they are issued every six hours.

76 CAPTAIN FILOR: And do you get them regularly? Do you get them every six hours or are there any breaks?

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

INTERVIEWEE: Well, there would sometimes be breaks. The odd one is sometimes missing out. For some odd reason simply they are not sent, and there would be some times when the radio reception is so bad that we do not get them. Otherwise we usually get them. Of course, there could be the odd risk that the officers that are on duty did forget it - or was occupied by other things - because you have to tune it in and - it starts up automatically, but you have to have the receiver on, so sometimes, of course, they might forget it.

CAPTAIN FILOR: I would just like you to just quickly look at the - you will see there's a letter there - covering letter - and those are the information I got from the Bureau of Meteorology.

INTERVIEWEE: Yes.

CAPTAIN FILOR: I would ask you to quickly look at them. I've looked at them yesterday. They do conform very much to the ones that you had.

INTERVIEWEE: Yes.

77 CAPTAIN FILOR: If you would just have a look and see if you agree or not?

INTERVIEWEE: Yes.

(Document shown to interviewee)

INTERVIEWEE: Yes, they conform quite well with what I have seen already.

78 CAPTAIN FILOR: That low pressure just off the south of New Zealand is the one and the high pressure is the other one you referred to?

INTERVIEWEE: Yes. Yes. Exactly.

79 CAPTAIN FILOR: Now, you said in your general description just now that you rather expected the weather to go around to the west?

INTERVIEWEE: Yes.

80 CAPTAIN FILOR: But it didn't do so. Have you been to

Grounding of "Nella Dan"

Investigation by C.W. Filor and T.M. Fitzpatrick

Interview of ARNE JACOB SORENSEN continued

Macquarie Island with an easterly wind so persistent before, from memory?

INTERVIEWEE: I haven't been to Macquarie when they have had a persistent wind which has been nothing else than west.

CAPTAIN FILOR: Right.

INTERVIEWEE: In fact, this time it wasn't easterly. It was rather southerly with some easterly in it, but nevertheless, the only persistent winds I have had around Macquarie have been westerlies or north-westerlies.

- 81 CAPTAIN FILOR: When you arrived at Macquarie Island did you set down a sailing time? Was any sailing time given?

INTERVIEWEE: Well, not really. It was so that the schedule said probably that we should be there from the 4th to the 7th of December, so we would have guessed that we would be there for four days, and it was - even though we didn't put a date - it was our estimation that we wouldn't be there for less than the four days since we had more cargo than usual - more concrete for a foundation for a satellite dome, so for that reason we knew ~~that we knew~~ that we wouldn't use less than usual.

- 82 CAPTAIN FILOR: When you arrived and the LARCs were operating - did they take passengers ashore - or the expeditioners ashore?

INTERVIEWEE: Yes.

- 83 CAPTAIN FILOR: And did those expeditioners return at night? I mean, were they using the "Nella Dan" as a hotel or were they lodged ashore?

INTERVIEWEE: Well, most of them returned on board, but not all of them. There were, first of all, the ones that had to stay there just for the duration of the ship's stay at the anchorage. They, of course, were ashore as long as possible, so they didn't sleep on board, and there might have been the other odd one which had to spend the three weeks on the island. Probably they would have stayed ashore as well. So, we had 50

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

passengers, and I would say that we had sleeping on board around 30 or so.

84 CAPTAIN FILOR: Now, who is in charge of the oil transfer?

INTERVIEWEE: Well, in principle it's the chief engineer.

85 CAPTAIN FILOR: And when you decided to go ahead on the 3rd and discharge oil, did you do that in conjunction with the voyage leader? Was it discussed with him at all?

INTERVIEWEE: I doubt it. It would have been discussed between the chief officer and myself, since - well, we are really the ones that discuss the navigation side of it. If we are in doubt of the interests of the expedition of course we discuss it with the voyage leader. Most things are discussed with him, but if we have already planned to pump oil at some stage, then we would be prepared to, and when we have agreed, well, now it is the time to do it, then we will tell the shore possibly we want to do it now, or do you agree that we can do it. It's hard to say exactly how the words would be put.

86 CAPTAIN FILOR: On the 3rd were you concerned about the oil transfer at all?

INTERVIEWEE: No. Well, not in the morning, at least. Once we had got started you have committed yourself to doing so. As I told you, it was at force 5 in the morning when we started and later on it picked up to force 7 and later on, force 8, and if it had been so when we started, we wouldn't have started.

87 CAPTAIN FILOR: Did you consider at any time suspending the pumping?

INTERVIEWEE: Yes, well, that's of course always the option that you've got and I did consider it, yes, since not being exactly a lee shore, but something very close to it since you had this Wireless Hill up here with this southerly, it is virtually a lee shore anyway, even though it wasn't an easterly, so no navigator likes being at anchor off a lee shore, but if you have operations going then you have to weigh out the pros and

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

cons and if you are - if you make sure that the ship is not moving, if she is not dragging the anchor, you can carry on, and that is what we did, watching the fuel hose and looking at the situation in general that it could be done, as I said, well, if the wind had picked up before we started I would say that I wouldn't have done it but the thing is once you have got started you commit yourself - not so that you can't avoid it, of course not.

88 CAPTAIN FILOR: You were saying that you had 230 cubic metres to discharge -----

INTERVIEWEE: Yes.

89 CAPTAIN FILOR: How long did you estimate that would take?

INTERVIEWEE: That would have taken what we worked out during the day with the rate of pumping, it would have taken us to, in my opinion, to just around 9 o'clock in the evening.

90 CAPTAIN FILOR: So about 14 hours pumping time, something like that?

INTERVIEWEE: Yes.

91 CAPTAIN FILOR: Were you aware at any time with the amount of oil left on the island how vital was it to get the stuff ashore?

INTERVIEWEE: No, I wasn't, but if I wanted I could have guessed, since when you have gone through half of the day you know that you have got so and so much ashore and I would know by experience that it would last them for half a year, something like that.

92 CAPTAIN FILOR: But, even before you started to discharge, do you know what stocks were left on the island?

INTERVIEWEE: I can't tell you now that I know; I would say that I have a faint impression that there probably would have left for a couple of months, but I'm not sure.

93 CAPTAIN FILOR: But nobody told you that there were so many days-----?

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

INTERVIEWEE: If they told me, I have forgotten, but if I've got that faint impression I could have sort of heard it in a conversation. I doubt very much I was told directly that this is how the situation was.

94 CAPTAIN FILOR: On the 3rd of December now you suspended, according to the log book, discharging to the LARCs at about 11.45 or thereabouts?

INTERVIEWEE: Well, according to this it appears to be 10 minutes to 10.

95 CAPTAIN FILOR: 10 to 10. That was when you suspended operations with the LARCs?

INTERVIEWEE: Yes, ^{cargo} ~~cut~~ operations, yes. And I don't know, or rather, I can't recall, if the LARCs carried on. They could well have done so if they were - if they carried passengers or something.

96 CAPTAIN FILOR: At that time, do you know how many people were ashore and how many expeditioners aboard?

INTERVIEWEE: No, but anyway - well, the log book states we stopped the cargo work with the LARCs and that-----

97 CAPTAIN FILOR: Right. It doesn't refer to them?

INTERVIEWEE: No, it doesn't mark the actual LARC operations since I recall that when we had the evening meal we settled for a ~~stand-up~~ evening meal which is 6 o'clock in the evening. Usually during cargo operations it is 8 o'clock to get a full day's work and we had a ~~stand-up~~ meal at 6 o'clock with - to my knowledge the ones that were supposed to be there, to be aboard, they were there, so then the LARCs would have been going to and fro with the passengers whenever they were scheduled to come back. STANDARD

98 CAPTAIN FILOR: On the 3rd, how often did you visit the bridge?

INTERVIEWEE: It is hard to say, but I go there very often during such a six-hour spell which, well it's so that during the discharging operations it's so that the chief officer is on deck looking after the cargo

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

operations and the first and the second had six hour spells each looking after the anchor and the anchorage and during such a six hour spell I would say that I would have been there at least half a dozen times.

99 CAPTAIN FILOR: Now we heard from the - Mr Pedersen and also the second officer that at some time in the afternoon about half past -----?

INTERVIEWEE: Yes, Pedersen, the AB?

100 CAPTAIN FILOR: The AB. That some time in the afternoon, in fact, the white mark disappeared or a certain amount of cable veered out. Were you aware of that?

INTERVIEWEE: I have a faint recollection of something like that happening. I'm not sure that it was brought to my attention as a particular worry. I believe that they tightened the brake and it appeared to me that it was not of a great concern. Naturally, I was half aware of it, but they didn't tell me like something to worry about.

101 CAPTAIN FILOR: And do you know what the wind speed or can you recall what that was at that time?

INTERVIEWEE: Well, it would have been - it is not stated in the log, so if it was sometime in the afternoon it would have been 30-odd knots.

102 CAPTAIN FILOR: You have on board an anemometer. Is that very accurate, do you know?

INTERVIEWEE: Well, we haven't had any means of checking it but we have made cross-checks between that one and the other one which we have just installed which is just a bit of tube and some red fuse in a glass tube FLUID and we have tried to compare these and it appears to be reasonably accurate.

CAPTAIN FILOR: I'll just show you the - you see, it's marked Bureau of Meteorology -----

INTERVIEWEE: Yes.

(Interviewee shown meteorological data)

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

103 CAPTAIN FILOR: That's the recording from the gauge on board the ship on the date of the 2nd. We haven't got one for the 1st, unfortunately, but you'll see the heading is relative to the ship's head. You will note that the speeds there are between 16 and - about 16 knots. Is that your recollection of the wind that day?

INTERVIEWEE: That was the 2nd?

104 CAPTAIN FILOR: That was the 2nd.

INTERVIEWEE: Yes. It seems pretty consistent with what we have put into the log. Yes.

105 CAPTAIN FILOR: And then the following day, this is the 3rd, and these are in summer time, you will note that this is the increase in wind you were talking about early in the morning and at about 1430 around here (indicating), wind speeds 35 knots, maybe a little bit more, so that is as you recall it, is it?

INTERVIEWEE: Yes, it is quite consistent with what I recall.

106 CAPTAIN FILOR: If I can just recap that last point again, you weren't in fact officially told, or you can't recall the memory of being told about the anchor?

INTERVIEWEE: No.

107 CAPTAIN FILOR: I wonder now, perhaps, if you would continue your description, perhaps from the time you had tea or unless there is anything -----?

INTERVIEWEE: Yes. Yes, well I had tea at 6 o'clock and usually it lasts for half an hour or three-quarters or so, and when I was just about to have a cup of coffee after having my meal which would have been just at half past 6, I, well, I put myself in a position in the dining room so I can look out the window - look out the bullseye since I want to follow what's going on and I do that sort of quite often whether you are in the ice or whatever you do, you sort of look out and look at the situation and that was what I did, and just at, just around half past 6 I looked out and looked at these transit marks that I had been looking at very closely with Magnus in the afternoon and I noticed there

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

was something wrong, well, just something which I didn't like. I just had a quick glance, and it told me there was something wrong, so I went to the bridge and I noticed that we were certainly out of those marks and I had a glance at the radar and that showed me as well that we were - had gone closer. So the second mate had a conversation with the so-called fuel farm about the transfer of fuel - I really don't know what they were talking about but it sort of doesn't matter anyway, since I told the second mate, well, forget about what it is and tell them that we're stopping right now. And then I told the assistant engineer who was on the bridge. But I should tell you that when they are pumping the fuel as we agreed it's under the chief engineer's supervision but it is actually one of the engineers being in the engine room or somewhere thereabouts looking after the pump and the valves, and then there is an assistant engineer on the bridge and he looks after the fuel hose and, well, the mate does that too, and looking after the gauge on the bunker pipe to see if the pressure is falling, it might be a sign of either no oil or a break in the line, so then we have the emergency stop up there on the bridge so that if there is something wrong, we can stop it immediately. And sometimes ~~with me~~, in fact, *SO THAT* (inaudible) the engineer, is on the bridge and the assistant is sent out to dip the tanks or whatever they do. So I told the assistant engineer, Lars, that we were stopping and I told him to go - I asked him, "Is Jes, the first engineer, in the engine room?" and he said, "Yes, I believe so". So I told him to go down there immediately and tell Jes to start up straight away and then I looked a little more at the situation, tried to figure out what was going on actually, since I didn't really have time to do that, I just wanted to start the action as soon as possible. Then I switched off the fuel pump by using the emergency ~~pump~~ *STOP* and I believe in the meantime I had told the second mate to get something organised regarding a party for the windlass and as well to get rid of the fuel hose and by then I could see that we were drifting pretty fast so I had decided anyway that I wouldn't bother about the fuel hose - that it was a minor concern, the situation being as it was. So, a few minutes later Jes gave me a standby on the engine room telegraph and then he started immediately after and by then, as soon as I noticed that I had reasonable revolutions on the engine which I of course could see in my instrument on the bridge, I started giving pitch something like dead slow ahead, probably, to start and giving the rudder full

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

aport - hard aport and then I told Anders to go on the fo'c'sle and try to get the anchor and my intention was that we'd have been heading this way, with the southerly (indicating) a bit by the east probably looking like that, with the head pointing this way and what happened then when the anchor obviously dragged was that the bow was put to starboard so that we were more or less broadside to the wind at that time and what I tried to do then was to give the wheel hard aport and give some engine power ahead and then at the same time heaving on the windlass, of course the idea being to try to get head into the wind and get out. A few minutes after this, well, a couple of minutes later, Jes gave me full ahead on the telegraph which told me that I had control of the engine. So, I proceeded with something which would have been similar to slow or half ahead and still hard aport. Since they told me from the fo'c'sle they were having trouble of having the windlass pulling in the chain it seems - we discussed it afterwards, of course - and it seems quite inconsistent that we were dragging the anchor, but at the same time - which indicates to you that the anchor isn't holding very well - but at the same time they did have trouble in trying to pull in the anchor, that's of course, if there is sliding over the ground it could still have quite a lot of resistance. Anyway, they had trouble in getting it in, so I tried with the engine to ease it off and to get the bow into the wind. Unfortunately, we were unsuccessful in that, and then the ship hit the ground at sometime during this operation and a couple of times more, as Soerensen recalled. But we got into some more shallow water and hit the ground. Having no success in getting ahead then get out I tried after a while to reverse full astern since if the bow is still drifting for the wind and dragging the anchor it is so that then the ship will by reversing usually back into the wind and that is why I tried to reverse full astern and getting the stern into the wind. I tried that for around ten minutes and in the meantime the chief engineer came up on the bridge and told me that the water was entering the engine room and the tunnel as well. So I knew, of course, that the ship had been holed then, and having no success either with reversing out of this situation there was no other option - well, this didn't have any effect, there was no other option than stopping the engine. I knew very well that if I had let it run for another, say five or ten minutes I would have ruined it completely, and as it didn't have any effect I stopped. And by then we were not firmly

Grounding of "Nella Dan"

Investigation by C.W. Filor and T.M. Fitzpatrick

Interview of ARNE JACOB SORENSEN continued

aground but obviously touching the ground so much and so often that the engine didn't have any effect. By then I had given the order to abandon ship and there were two options, of course - three, rather - you could say four. Four. One, just jump in and then try to swim ashore. The other one, putting out the life rafts, four of them being brand new, in fact. The lifeboats as a third option, they also being brand new covered lifeboats, but being so close to the shore, having the amphibious LARCs sitting right in there on the shore, that seemed the very best option. So we called them when we realised the trouble that we were in, called them out and said, "Well, we are abandoning ship. Please stand by along our starboard side" which being the lee side that is where they could get off most easily, we put out the ladders there and we had one tied up to the other one, so that we used the first one as a platform getting them off there and transferring them to the other one, and then getting people on that second one, and the third one was in operation shortly afterwards. It was further to the stern of the ship and that went reasonably well, although it was a bit rough. The worst thing was that just around when we had got the first, say, half dozen people off, a double bottomed tank was punctured and a lot of diesel oil was pushed out through the vent pipe just forward of the accommodation on the ship and that poured down over the LARCs and over the ladders so it made it quite slippery and then people got oil in their faces, so it was a bit unhappy that that had to happen, but we pretty soon got a tarpaulin to tie over this air pipe to stop the oil from pouring over, but still it was all over the place and in the water. Whether it was from that tank or not I don't know, but there was a lot of oil in the water and as you can see on this picture there is actually water all over the ship and then some of that water would contain oil so it was from the flying bridge to the bottom deck. It was everywhere. Anyway, we got them off, fortunately, safely and we remained there, five persons on board, which was myself, the chief officer, first officer, chief engineer and the bosun. The idea was that still looking at the weather maps - we still anticipated that the low would move and I believe I have the recollection of having a forecast which said something about a change to the south-west at some stage, and I had hoped that it would come during the night. First of all we had the leakage to the main engine room and to the tunnel and I knew that the ship would still float with those two compartments flooded since the auxiliary engine

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

room was still intact. The watertight door was closed of course. The wind did not change and moreover by bumping up and down on the sea floor we anticipated that that is the reason, but during one of our inspections we noticed that there was water in the auxiliary engine room and I went down there and I could see that the watertight door had opened and I expect that is simply the movement of the ship because we had tightened it as much as we could. So when that had happened there would be too great a risk of getting the ship out so we had to leave it as it was, as the wind didn't change - didn't make much difference anyway. So that more or less is the situation as it was around midnight and I would have to add that you would have noticed I put in the log book that the hours from 1830 to half past 8 are entered, from my recollection, I entered them in the log around 9 o'clock when we had all off and the ship was safely or unsafely aground, whatever way you would consider it, and I, well I had to think that we had to put something in the log. Until then we had concentrated on doing all the things that we considered more important, mainly to get the people off and assess the situation and do what we could, so all these times could be slightly inaccurate with, say, five or ten minutes here and there, and if I put five minutes in between two occurrences it could have been, say, three or four and some - after discussing with people after the events the day after, some said, "Well, it certainly wasn't five minutes, it was two minutes" and it's very hard to assess afterwards how fast it went and nobody is really in a position to put down notes on paper - you don't look at the logbook - you act and you have to act.

CAPTAIN FILOR: I appreciate that.

INTERVIEWEE: I don't know if there's really more to it than that - if you want a -----

108 CAPTAIN FILOR: Well, we'll touch on some things, perhaps as we just clarify that. Would it be time now to perhaps have a break for a cup of coffee, and then we'll finish off?

INTERVIEWEE: Yes, I wouldn't mind a cup of coffee.

(The interview adjourned temporarily at 10.41 a.m.)

(The interview resumed at 10.57 a.m.)

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

(Mr Cogan no longer present at interview).

109 CAPTAIN FILOR: In your general description just now you were saying that you went for tea at 6 o'clock?

INTERVIEWEE: Yes.

110 CAPTAIN FILOR: Were you aware that, or did the second officer report to you in any way that the ship had shifted or in his opinion moved?

INTERVIEWEE: No, in fact we discussed the opposite, rather, that when we looked at this transit marks we agreed that she had not moved, that we - well, shortly before she - whenever - well, the first officer and I looked at these transit marks and we agreed that the ship had not moved, so we rather discussed the opposite.

111 CAPTAIN FILOR: Did you go to the bridge before 6 o'clock, just before 6 or right at that time?

INTERVIEWEE: I wouldn't be able to recall that, but it wouldn't have been long before 6.

112 CAPTAIN FILOR: The second officer, in his statement to us in his interview, said he went to the bridge and the variable range marker he had to readjust from two cables .2 of a mile to .17. Were you aware of that?

INTERVIEWEE: No, I wouldn't have been aware of a decrease like that, but I looked at the variable range marker at times and the figure was consistent with what I recalled from the last time.

113 CAPTAIN FILOR: The problem here is, of course, we're dealing with such small distances, 0.3 of 55 metres. It could easily have its problems.

INTERVIEWEE: Yes. It is. Well, I looked at it another way that whichever figure I looked at, if that put the anchor more or less in the right position, I was satisfied. If one measure from the bridge of the ship there was, say, two cables, or whatever, to here and then add from the bridge to the bow and then the length of cable, if that puts the anchor in the right position, well, as close as you can get, then I'm satisfied that

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

it has moved. Of course there's no doubt that an anchor can move, since if you drop it in reasonably good circumstances and the wind is northerly, if it changed around the anchor will change position since it is pulled around; it has to be sort of dug down in the ground before it really catches, so of course it changes a little, there's no doubt about that.

114 CAPTAIN FILOR: During your evening meal somewhere around 10 past 6, did you receive any phone calls?

INTERVIEWEE: No.

115 CAPTAIN FILOR: Well, if you did, you would have remembered. It wasn't significant in any way?

INTERVIEWEE: No, it would have been some insignificant matter. If it was something like the ship was dragging the anchor or something, I wouldn't care about the tea.

116 CAPTAIN FILOR: Did you have anything to drink, any alcohol, or were you taking any medicines or drugs?

INTERVIEWEE: Well, I don't take any medicines and I had half a glass of wine.

117 CAPTAIN FILOR: And were you satisfied that your officers hadn't been drinking in any way or -----?

INTERVIEWEE: I've not noticed them at all being intoxicated.

118 CAPTAIN FILOR: If we could go to 1830, you left the saloon at that time, did you hurry to the bridge or -----?

INTERVIEWEE: Yes, I did.

119 CAPTAIN FILOR: And you, according to - as I understand your statement just now you realised at that time the ship was dragging?

INTERVIEWEE: Since I was looking out at the very transit marks that I have just described to you that I looked at very - well, that we watched closely, Magnus and I, some time before 6 - between 5 and 6 whenever it was, those were the ones that I looked at to see through

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

the bullseye and I noticed then they were wrong so then I of course hurried to the bridge.

120 CAPTAIN FILOR: Did you consider dropping the second anchor or at least putting it on the bottom?

INTERVIEWEE: Yes, I did consider it but, with one anchor not holding I didn't anticipate the second one holding either and, anyway, in any event, well, it was not the place I wanted to stay, anyway, even if I had got the second anchor to hold.

121 CAPTAIN FILOR: When you arrived on the bridge, who was there?

INTERVIEWEE: The second mate.

122 CAPTAIN FILOR: And who else?

INTERVIEWEE: The assistant engineer, Lars Mortensen and I believe one of the ABs were there.

123 CAPTAIN FILOR: On arrival, what did you do?

INTERVIEWEE: On arrival at the bridge, yes. I told Anders to tell the shore that we would stop pumping the fuel. I told the assistant engineer Lars to go to the engine room immediately and tell Jes that we had to start right here and now, and then I started looking at the situation and how much we had drifted and tried to figure out why, and then, I may not even have discussed it with the second mate, really, I just told them that we'll have to prepare for pulling up the anchor or getting the anchor in and getting out, getting the ship out, I am not sure that I really discussed the situation with them - I just told them that this is what we have to do. And then Jes followed as I've just described that the engine was started.

124 CAPTAIN FILOR: From the time that you told the engineer to go down to the engine room to the time you got to the engine, how long was it? It's difficult I know, but can you give me some estimate?

INTERVIEWEE: Well, the estimate which I put in the log is that from when I arrived at the bridge and noticed the anchor dragging till the engine was started was five minutes which could be four, could be six.

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

125 CAPTAIN FILOR: Now, why did you tell the engineer to go down?

INTERVIEWEE: Well, the reason being that as I described to you that the standard procedure, the standard agreement that while the ship is at anchor is that the engine is ready in such a way that we can start it in certainly less than five minutes, but it is so that the engineers are not on standby - the first engineer he was attending to the fuel pumping, so I did not positively know where he was if he was actually in the engine room or if he would have been on the deck just say, looking at the fuel hose or something, he is not looking at the pump at all times, I know that, and that was the reason that I asked Lars Mortensen to be sure that he got hold of the first engineer and got the engine started and, moreover, I did not want to bother with the phone when I would rather assess the situation, since if I phoned I would take my time and I would take the engineer's time when he should rather be starting.

126 CAPTAIN FILOR: Can you recall exactly what you told him - or paraphrase what you told the engineer?

INTERVIEWEE: Well, I can't recall it exactly, but I would say it was something like, "Go down and tell Jes that we have to start immediately" and then I asked him, "Jes is down there, isn't he?" and then he said, "Yes, well he is", and I said, "Well, go right down there" - something in that sense.

127 CAPTAIN FILOR: All right. Did he hurry off?

INTERVIEWEE: Yes, that was my impression, yes. Well, yes, he did; he went off immediately.

128 CAPTAIN FILOR: And from that time - and again, I know this is difficult - from that time till the time that standby engines was rung on the telegraph, how long was that?

INTERVIEWEE: Well, it would probably have been in the range of, say, three minutes. That is hard to assess, but it is in that range.

129 CAPTAIN FILOR: Then what did you do after that?

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

INTERVIEWEE: Well, then I did as described, that I started giving the engine some pitch until I had the full engine control and giving the wheel hard aport and so forth and sent out second mate to the fo'c'sle.

130 CAPTAIN FILOR: You didn't put the wheel hard aport - starboard before you put the pitch on?

INTERVIEWEE: Well, it would have been at the same time. I kept dead slow ahead on the pitch and then the wheel hard aport - it was really the same instant because the rudder control is next to the engine control and I did that at the same time.

131 CAPTAIN FILOR: Did you send the seaman up who was on the bridge to do anything?

INTERVIEWEE: No, the second mate did.

132 CAPTAIN FILOR: And how long did it take - how long was it before the second mate went to the fo'c'sle?

INTERVIEWEE: It is obviously, according to what I've put in here, it was just about the same time as I had the engine. In fact, I recall now that the reason I put in this time 1835 for starting the engine and heaving on the windlass, that the reason for doing so is, as far as I recall right now, that when Anders arrived at the fo'c'sle and said, "Well, here we are, ready", I said, "Well, start heaving", and then he said, "We have some problems, sir, to pull up the - pull in the chain". I said, "Well, that's all right, but I've just got the engine, so I'll give her some pitch and give her some rudder so that I can aid you in getting some slack on the chain", and that's the reason that I believe that these two times are rather concurrent.

133 CAPTAIN FILOR: And who else - did anybody join Anders on the fo'c'sle? Or was he there by himself?

INTERVIEWEE: No, he wasn't there by himself. My recollection is that probably Willy was there. I can't recall the sequence of events, but I would expect that Anders went on the fo'c'sle via the ~~cruise~~ mess or *crew's* either that he told the AB on duty that we needed the anchor party out there. I can't recall exactly how he did it, but he had some people with him when he went on the fo'c'sle.

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

134 CAPTAIN FILOR: Was the officer on watch, the second mate - was he kitted out? Was he in warm clothes?

INTERVIEWEE: I wouldn't be able to recall. He usually, when he was on anchor duty, he was probably wearing a jumper or something and then he had on a hook up there a jacket of some sort. I would guess that is what he had on, but I am not sure.

CAPTAIN FILOR: If we can move on now to the evacuation. You said that there were four options -----

INTERVIEWEE: Yes.

135 CAPTAIN FILOR: And you in fact contacted the shore and asked the LARCs to come out, was that your decision?

INTERVIEWEE: Yes.

136 CAPTAIN FILOR: Would it have been safe to use the boats, do you think?

INTERVIEWEE: Yes, it would have been, but under the circumstances it was safer to use the LARCs since being amphibious they can get on the shore. Of course we could have used the boats, and we would probably have wrecked them on the way but since going on to a lee shore with those boats we would probably have wrecked them, but nevertheless, we would have gone on the shore and got people off, but, considering the circumstances, then in that case probably the inflatable life rafts would have been better, since they are easier to get further up on the shore and you can sort of not walk up ~~far ashore~~ but you can get to shore easier.

137 CAPTAIN FITZPATRICK: The "Nella Dan" - what survey certificates did she have?

INTERVIEWEE: Well, she's classified in Lloyds Register as being a passenger ship. Of course we have the usual yearly surveys. This is the most recent passenger safety certificate and she underwent a special survey last year.

138 CAPTAIN FILOR: May we take those and get copies made?

INTERVIEWEE: Oh yes, yes, for sure.

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

139 CAPTAIN FITZPATRICK: Right, she was a passenger ship; she was not a special purpose ship?

INTERVIEWEE: No.

140 CAPTAIN FITZPATRICK: Have you got anchor certificates in here, Captain?

INTERVIEWEE: Yes, there's a - there is a whole stack of certificates here applying to anchors and chains. These are the last measurements of the chains which were made *AALBORG* in ~~Holborg~~ during a special survey last year.

141 CAPTAIN FITZPATRICK: This was in ~~Holborg~~ in Denmark? *AALBORG*

INTERVIEWEE: Yes. Last year.

142 CAPTAIN FITZPATRICK: Were they end-for-ended, do you know?

INTERVIEWEE: They weren't.

143 CAPTAIN FITZPATRICK: They weren't. But they were hammer tested, and ranged and tried out?

INTERVIEWEE: They were ranged and then all these measurements - they're just averaged. There are measurements made on every length of chain and well, in fact we don't end any of them, since we, if we figure out that they're not good enough we change that length of chain and it's usually so that the last - those couple of *LENGTHS* ~~links~~ of chain closest to the anchor, they have been changed a few times since they are the ones being worn, so that's why we don't end for end them.

CAPTAIN FITZPATRICK: We'd like to get copies of them.

INTERVIEWEE: Oh yes, sure.

144 CAPTAIN FITZPATRICK: Okay. So you had valid survey certificates and permits (inaudible) certificates. This circle here, what's the significance of that?

INTERVIEWEE: It's one that one of my predecessors has drawn in. This is as he considered the anchorage area - but this was the actual anchor position that the one user

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

used, but he considered this circle as inside that circle you could anchor.

145 CAPTAIN FITZPATRICK: And did you consider it to be a good anchorage inside that circle, anywhere inside that circle?

INTERVIEWEE: Oh yes, I would say so. As I described earlier, it's so that if you wanted - if you moved further out to deeper water and if you had an offshore wind it's easier to drag the anchor, pulling downhill, having deeper water and you get closer to the shore as well for the cargo operations.

146 CAPTAIN FITZPATRICK: Can you work the ship from this bay here?

INTERVIEWEE: Yes, that can be done. In fact that was in my mind that when we had finished the fuel pumping and that was one of the reasons I wanted it finished of course, that if the wind stayed on I might have moved over there. I've never done so since these easterlies are quite rare occasions but the book says that you can do it and I've seen in maybe one or two of my predecessors' reports that it can be done, but even in an easterly it takes quite a while before the westerly swell dies down and the westerly swell is simply - it's consistent. There are not very many days that you could work over there - it has been done at times.

147 CAPTAIN FITZPATRICK: And you could discharge the oil from this bay?

(Indicates Hasselborough Bay)

INTERVIEWEE: To my knowledge it's never been done.

148 CAPTAIN FITZPATRICK: It's never been done?

INTERVIEWEE: No, since you can't anchor as close as you do here you would have - this is say 3 cables off, and over here you have to get at least 5 cables off and then the hose wouldn't be long enough, to my knowledge, but it has never been done, and not been considered.

149 CAPTAIN FILOR: When you anchored on the 1st of December you said you had four shackles in the water. Is that correct?

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

INTERVIEWEE: Yes.

150 CAPTAIN FITZPATRICK: ...because we have heard that it was four shackles on the winch. That's your second officer told us.

INTERVIEWEE: Well, he was obviously not the one dropping the anchor, but he could have been right.

(Interviewee refers to ship's log)

INTERVIEWEE: No, he is right. Four shackles on the windlass - that's what you just said -----

151 CAPTAIN FITZPATRICK: Okay. So we have just established that fact. So you probably had about three and a half shackles in the water; about that?

INTERVIEWEE: Yes.

152 CAPTAIN FITZPATRICK: So, do I understand it, then, on the evening of the 3rd, when you were having the evening meal, the second officer or anybody did not inform you that the ship was dragging her anchor?

INTERVIEWEE: No.

153 CAPTAIN FITZPATRICK: You found out by looking out of the window; is that correct?

INTERVIEWEE: Yes.

154 CAPTAIN FITZPATRICK: That's how you discovered it?

INTERVIEWEE: Yes.

155 CAPTAIN FITZPATRICK: When you got on the bridge - presumably you moved pretty quickly to the bridge?

INTERVIEWEE: I did, yes.

156 CAPTAIN FITZPATRICK: Did the second officer realise the ship was dragging her anchor?

INTERVIEWEE: Well, it didn't appear to me, no.

157 CAPTAIN FITZPATRICK: You are saying that the officer

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

of the watch was not aware the ship was dragging her anchor?

INTERVIEWEE: Yes. Well, that appeared so.

158 CAPTAIN FITZPATRICK: Did you say anything to him?

INTERVIEWEE: No, not really, since I wanted action, and it is not the time to discuss whatever would have been the cause for that, since - well, of course I could have argued with him that - I say, haven't you seen that the ship is moving, but I don't like that because I'd rather see some action in quite a difficult situation. I can't assess just how fast that happened. If - well, nobody informed me. That is obviously because nobody knew, nobody had seen it. Whether it would have happened while he had his telephone conversation - well, radio conversation, I can't say. The only explanation that I can come up with is that it has happened in a very short time, and probably while he was talking there with the shore.

CAPTAIN FITZPATRICK: Yes.

INTERVIEWEE: It is not so that he would be unable to look out the window just because he talks on the VHF, but possibly he didn't have his attention on the right thing.

159 CAPTAIN FITZPATRICK: Right. Okay. Was there means of communication - a telephone line - between your dining room where you were eating that night and the bridge?

INTERVIEWEE: Yes.

160 CAPTAIN FITZPATRICK: There was a telephone system?

INTERVIEWEE: Yes, brand new, too, unfortunately.

161 CAPTAIN FITZPATRICK: Brand new?

INTERVIEWEE: Yes, and it has gone in the drink.

162 CAPTAIN FITZPATRICK: And the steering welches?

INTERVIEWEE: They were running.

CAPTAIN FITZPATRICK: They were running, so -----

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

INTERVIEWEE: Well, that's part of the agreement, as I told you, I did forget to tell you that they were running as well. So we - being in such a short notice, they had to do so as little as possible to start the engine and the hydraulic motors for the steering engine were running as well.

163 CAPTAIN FITZPATRICK: Right. So when you put the wheel hard to port, the motor was instantly available. There was no delay there?

INTERVIEWEE: No.

164 CAPTAIN FITZPATRICK: No delay. Could you communicate from the bridge of the "Nella Dan" to the engine room by means of a telegram?

INTERVIEWEE: Yes.

165 CAPTAIN FITZPATRICK: Why didn't you think of the telegraph for the engines to stand by, to be made ready for movement?

INTERVIEWEE: Well, the reason being that I didn't know whether the first engineer was there or not.

166 CAPTAIN FITZPATRICK: Yes. Had he been in the auxiliary engine room would he have heard the telegraph ring?

INTERVIEWEE: Yes.

167 CAPTAIN FITZPATRICK: He would?

INTERVIEWEE: I think so. Yes.

168 CAPTAIN FITZPATRICK: Would he have heard the telephone ring?

INTERVIEWEE: Yes.

169 CAPTAIN FITZPATRICK: When you ring the telegraph on the bridge of the "Nella Dan" does it sound an alarm in the engine room?

INTERVIEWEE: Yes.

170 CAPTAIN FITZPATRICK: Is it very noisy, and it keeps

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

maintaining the noise - the alarm - until the telegraph is answered?

INTERVIEWEE: It does.

171 CAPTAIN FITZPATRICK: And could the alarm of this telegraph in the engine room be heard everywhere where the engineer is likely to be when he was on anchor watch?

INTERVIEWEE: Not on deck. In the engine room, yes, but not on deck.

172 CAPTAIN FITZPATRICK: But it was always possible that the duty engineer may have been on deck to watch the discharge of this oil?

INTERVIEWEE: Yes.

173 CAPTAIN FITZPATRICK: And are you saying that was the reason why you sent the assistant engineer down, to go and look for the engineer rather than try and communicate by telegraph or by telephone?

INTERVIEWEE: Yes. That was part of the reason, the other part being that I wanted him to convey to the engineer that he had to start immediately, and if I had to convey that to him by telephone, as I said earlier on, I would occupy his time and my time, but of course that is a matter of minutes, and it is - the possibility is, certainly, that if he had been next to the telephone or to the engine room telegraph I would have done it faster.

CAPTAIN FITZPATRICK: Yes. You mentioned earlier that there were two ways of starting your engine; you sort of purge through the cylinders -----

INTERVIEWEE: Yes.

174 CAPTAIN FITZPATRICK: ----- or you just bypass this purging system and start it.

INTERVIEWEE: No. It's just so that you use starting air to blow - to vent to the air the cylinder to make sure that there hasn't been any - the lube oil pump is running as well. If there was a leak that could collect lube oil or possibly cooling water, if there was a leak

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

of that, on top of the piston and that could cause a serious mishap, so that is the standard routine. But the engine being all right, there being no leakages that they know of, if they are told that it is an emergency, they will just forget about this purging or venting and just start the engine.

175 CAPTAIN FITZPATRICK: And what did he do on this occasion? Did he vent the cylinders, the engineer?

INTERVIEWEE: Well, I don't know, but considering the speed that he did it, he hasn't done it. I am almost sure that he didn't.

176 CAPTAIN FITZPATRICK: Yes. Can you show me, briefly, captain, where you think you were when the ship first touched the bottom, and the heading of the ship?

(Interviewee indicates)

177 CAPTAIN FITZPATRICK: Which way was the ship facing?

INTERVIEWEE: With its heading being into the wind.

178 CAPTAIN FITZPATRICK: And how would the anchor be?

INTERVIEWEE: That would then be pointing towards that original position, so that would be pointing that way.

(Interviewee indicates)

179 CAPTAIN FITZPATRICK: At more or less 90 degrees to the ship?

INTERVIEWEE: Yes.

180 CAPTAIN FITZPATRICK: Could you see the anchor from the bridge?

INTERVIEWEE: Yes, since when they had that trouble pulling in the chain it was obviously tight, at times, so it was more or less like that.

181 CAPTAIN FITZPATRICK: When you put your wheel hard aport and the equivalent of dead slow or slow on the pitch, almost, as far as we can gather, simultaneously, did that have any effect on the ship at all? Did the ship swing?

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

INTERVIEWEE: Very little. I would say it caused a little slackening in the chain, but not the amount I that I wanted to get the bow into the wind.

182 CAPTAIN FITZPATRICK: Yes. Why didn't you put it on maximum head pitch right away?

INTERVIEWEE: Well, because of the shore being where it is.

183 CAPTAIN FITZPATRICK: What, the shore?

INTERVIEWEE: Towards the shore. The bow pointing straight towards the shore, and obviously I didn't have any effect - not very much effect - well, probably more true to say it didn't have any effect, that I didn't want to head straight for the coast.

184 CAPTAIN FITZPATRICK: Right. And you are quite sure that your rudder did in fact go hard to port?

INTERVIEWEE: Yes.

185 CAPTAIN FITZPATRICK: You looked at the indicator?

INTERVIEWEE: Sure, yes. I had one in the control that I use, and I have another indicator - one not tied to that.

CAPTAIN FITZPATRICK: Okay. Thanks, captain.

186 CAPTAIN FILOR: If we can just tidy up one or two things. The draught, when you went ashore, is as on the SE 18 form?

INTERVIEWEE: Yes. Well, that is our best estimate, since it was not taken.

187 CAPTAIN FILOR: Did you consider at any time perhaps discharging the oil on the return trip?

INTERVIEWEE: Yes.

188 CAPTAIN FILOR: But, why didn't you settle for that option?

INTERVIEWEE: Well, it's one of the things that you

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

want to have out of the way since that, as you can understand, that the - sort of locks you in that position where you are, hauling the anchor up and hauling the fuel line on board. You are unable to do anything else and - well, exactly, well, it put us in the position and eventually put us in the difficulty that you would at all cost avoid and for that reason the first opportunity that you get where you consider it possible to get the oil in you try to get it in, that's the considerations that you make.

189 CAPTAIN FILOR: For instance, on the northerly trip you might have expected a westerly wind, perhaps a better lee?

INTERVIEWEE: Oh yes, yes, that's a possibility, the only thing being that all cargo operations were supposed to be carried out on this part of the voyage, so coming back we should opt to stay there for half a day or so, so really there wasn't the time in the schedule for pumping the fuel. Well, of course, that can always be changed if one wished to, but it wasn't built in the schedule originally at any time.

190 CAPTAIN FILOR: Did you discuss this with the voyage leader at all?

INTERVIEWEE: I doubt it.

191 CAPTAIN FILOR: Now, if we go to 1830 again, or thereabouts. The second officer, what was he doing when you arrived back on the bridge?

INTERVIEWEE: Well, as I described, he was talking in the VHF with the fuel farm ashore.

192 CAPTAIN FILOR: From subsequent conversation, do you know what the content of that conversation was?

INTERVIEWEE: No, I can't recall. I just imagined it was something with how much they considered they had got ashore and how much we had considered pumping in and then of course working on that, estimating how much there would be left and how much - how long time it would be. That is the usual sort of conversation that they would have.

193 CAPTAIN FILOR: We do have, from his recollection the

Grounding of "Nella Dan"

Investigation by C.W. Filor and T.M. Fitzpatrick

Interview of ARNE JACOB SORENSEN continued

second officer did say that the shore people did get in touch with him to say that they felt he was a bit close to the shore.

INTERVIEWEE: I see.

194 CAPTAIN FILOR: You'll recall that the marine science programme was being undertaken and, as you said, they have a transducer-----?

INTERVIEWEE: Yes.

CAPTAIN FILOR: I have here the printout from the time of arrival, if I may -----

(Shown to interviewee)

195 CAPTAIN FILOR: Now, I understand from the scientist that in fact this works on two depth - two ranges - and one is a deep range, and it works very partially - and the other is shallow water, and this runs from the time they leave Hobart till the time they return. Now, what I'm showing you now is from 0300 GMT on the 1st. You anchored at approximately 1405, which would correspond with this slight upset in the system, until they put it on the new range. So that would marry up there, and what I'd ask you to look at now is the general depths which is this column. You'll see that as you said earlier on, the general depth of the water there is about 16 or 17 metres, and this follows all the way through. Now, the ship's head is over on this side and, as you stated earlier, she was headed very much north-----?

INTERVIEWEE: There was a northerly wind.

196 CAPTAIN FILOR: Northerly wind. Now if we go through you will see that that general depth is maintained, and maintained, and maintained, taking you to about 6 o'clock on the 3rd. Now it just worries me slightly-----

MR BOWEN: If you look at the 2nd, I see it changes on on the 2nd day as well.

CAPTAIN FILOR: Well, there is a change on the 2nd but it might be a bit easier if I refer to this graph.

Grounding of "Nella Dan"

Investigation by C.W. Filor and T.M. Fitzpatrick

Interview of ARNE JACOB SORENSEN continued

197 CAPTAIN FILOR: This top blue line is the general depth of water. This is the tidal curve which we've got from the hydrographer. I understand that is fairly accurate. It may be a little bit out but -----

INTERVIEWEE: Well, the observations that we had - well, we got the tidal information because of the plans for salvaging and they tied up reasonably well with the plans.

198 CAPTAIN FILOR: This red line here is the ship's head. You'll see that when she starts, the ship's head comes round to something like 160, 150, that sort of area, there is a general reduction, just slightly, about a metre or so, which would explain the swing of the ship. There is a general reduction here about - a very slight one - I'm not sure it is significant - at 2 o'clock, I don't think so, generally 16 metres and it corresponds with low water. But this general area from about 6 o'clock in the morning, it does seem to be a general reduction, and at 1400 when that - there was that slip on the anchor, there again is a general reduction, and yet the ship's head is very much the same as it had been in the day in those positions. This is purely supposition, but would you have any observations to make? Could you have slipped - moved a bit - in that time, from the observations of your transits? I mean, did you have to realign them?

INTERVIEWEE: No, that was not my impression.

199 CAPTAIN FILOR: You'll see here that we can virtually work out fairly accurately when you went aground. We have a time here of 1847, or thereabouts. Now, I'd better explain, perhaps I should have explained earlier, that this echo sounder is set at 10 metres, and it doesn't record less than 10 metres, this depth here, what it does is add 5.8, so it looks from this - here we are running into the 10 metres - it's somewhere between 0745 and 0746. Round about here is the time that the thing went haywire - that would seem to be the time of touching bottom.

INTERVIEWEE: Yes.

200 CAPTAIN FILOR: Now, we go back to here, this general depth here - we're back at the 1700, which is before the second officer came on watch, we see that there is the

Grounding of "Nella Dan"

Investigation by C.W. Filor and T.M. Fitzpatrick

Interview of ARNE JACOB SORENSEN continued

general reduction in depths, here. I was just wondering again if you had to realign your marks at that time at all, because it does seem, from this, it could be that there was a drift then, a slow one, but you didn't get that impression from looking at your marks?

INTERVIEWEE: No, I didn't. If - I wouldn't consider a reduction of, say a metre, as very significant since that is a matter of specimen chain, and one can never rule out that the anchor moved, say, 10 metres because you dig her into the ground, so, I wouldn't consider a metre has any significance.

MR BOWEN: Captain, could we identify that record, please? Perhaps we could give it a name on the transcript.

CAPTAIN FILOR: Certainly. This is the record of the navigation and depth data from 0300 UTC 1st of December to 0920 UTC 3rd of December produced by the marine science programme of the Antarctic Division.

201 CAPTAIN FILOR: Now, if we can just turn quickly to the evacuation? How did that go? Was it an orderly evacuation, and did all the crew and everybody act correctly, in your view?

INTERVIEWEE: Yes, in my view they were - there were capable hands, down there in the passageway at all times taking care of each one going out on the ladder. They were in fact - a rope tied around the waist or over the vest - making sure that they wouldn't fall in between the ship's side and the LARC - and they were all competent people standing there and I didn't notice any sort of panicking or anything - it went reasonably well.

202 CAPTAIN FILOR: Now, I appreciate the situation as you were faced at the time. Can you recall, or, particularly subsequent to the evacuation, what was done to reduce pollution? Was anything done? Could you do anything?

INTERVIEWEE: Well, in my view, there was not very much that one could do. It was considered that at that stage to fill up the deep tank, No. 1, to put the ship hard aground, but we - our emergency generator failed just at the time that we made our plans so we were unable to do it during the night. But apart from that we did not

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORESENSEN continued

have any means of reducing, even though we would like to have done it, but there wasn't simply any means of doing so.

203 CAPTAIN FILOR: The oil that was escaping from No. 2 double bottom, was that the special oil which is the mixture for Antarctic use?

INTERVIEWEE: No, it's light marine diesel, which is quite light, anyway. It is close to being gas-oil.

204 CAPTAIN FILOR: Now when things had settled down and you appraised the situation, can you just tell me briefly why you retained the crew you retained, and why you sent the others home?

INTERVIEWEE: Well, the original idea being that as I told earlier on, while the auxiliary engine room was intact, I still had the hope that if the wind would change as it was guessed at the time then we might be able to get the ship off the ground and anchor her, although of course with the tunnel and the main engine room being flooded, of course we couldn't start the engine. But still better being able to sit at anchor, not being able to move with the engines than sitting on the shore. So the reason for retaining those five persons including myself was that we would have to do something if we were able to drop the other anchor, and then moreover having assessed the situation as we were sitting with an onshore wind at the time, we didn't consider any problems in getting off if something happened which we hadn't expected. But sitting on the seabed a ship wouldn't capsize, nothing would happen. But the thing is, of course, you don't want a whole crew on board, but the five - I couldn't see us being in danger.

205 CAPTAIN FILOR: Thank you. Captain, what I would ask now - I think that really winds up the questions we would like to ask you for the time being, but we would probably like you to be available later on today for anything that may crop up. I would also ask you to consider that in writing our report there is, I think, a strong possibility that we may be critical of the preparedness of the engines and various other aspects. You might like to think about that, and cover that when you come back in again, just out of fairness to you.

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

INTERVIEWEE: Yes. Which way prepare?

206 CAPTAIN FILOR: Oh well, you may like to think about - that that may be a criticism, or probably would be a criticism made in the report, and that you might like to think about it and make some statement when you come back.

INTERVIEWEE: Yes. Fair enough.

CAPTAIN FILOR: Well, thank you very much. I'm sorry, just one more question.

207 CAPTAIN FITZPATRICK: One more thing. At any time did you think that your port anchor cable parted?

INTERVIEWEE: No, it didn't.

208 CAPTAIN FITZPATRICK: You're quite certain about that - even when the ship was scuttled it still had -----

INTERVIEWEE: No, it was burnt off, but when the ship was refloated we got the anchor on board and the anchor was still intact -----

209 CAPTAIN FITZPATRICK: That was the port anchor?

INTERVIEWEE: The port anchor - it had not parted. We used it in fact later on for - dropped the anchor in conjunction with other ground tackle and then when she was finally tied up for scuttling the chain was burnt by acetylene, so there was not any problem with the cable nor with the anchor.

CAPTAIN FILOR: Well, thank you very much, captain. You have been very helpful.

CAPTAIN FITZPATRICK: Can we just keep these, and we'll get somebody to photocopy these documents here?

INTERVIEWEE: Yes, yes, sure, and if you want any of the Lloyds ones?

CAPTAIN FITZPATRICK: The certificate of ~~pass.~~ *CLASS*

CAPTAIN FILOR: Perhaps, if we could have them all.

CAPTAIN FITZPATRICK: Thank you. We'll give them all

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

back.

(The interview was concluded at 11.44 a.m.)

(The interview was resumed at 3.27 p.m.)

210 CAPTAIN FILOR: Captain, what sort of working relationship did you have with the voyage leader?

INTERVIEWEE: Well, as you probably are aware of, having read the charter party or something similar, it is so that he is the representative of the Director of the Antarctic Division, so in other words, the charterer's representative and he is giving the orders regarding the movements and the work of the ship. That has been put down already before the ship leaves in a voyage leader's brief, and that has been read by myself and the voyage leader and we have - each of us have in fact signed receipts to the director that we have understood what's put into it. And then to achieve those goals which are set out in the brief - well, we discuss on the way how we'll carry them out the best way.

211 CAPTAIN FILOR: Did this arrangement ever create any problems?

INTERVIEWEE: No, it hasn't done so far. Well, at times there could be some smaller things where you didn't quite agree, but I have never been into serious trouble that way, really.

CAPTAIN FILOR: Can I go, now, to about 18:30 or just after 18:30 -----

INTERVIEWEE: Yes.

212 CAPTAIN FILOR: When you were on the bridge with the engineer you told him to go down the engine room?

INTERVIEWEE: Yes.

213 CAPTAIN FILOR: According to - people's recollections are perhaps not what they might be - but reading the transcripts of his interview it seems to be suggested there that he didn't detect any great sense of urgency from you.

INTERVIEWEE: No. Well -----

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

214 CAPTAIN FILOR: Would you like to comment on that?

INTERVIEWEE: Well, I wouldn't rule - well, there are two possibilities; either that his recollection is wrong or that he misinterpreted what I told him, that he didn't consider it quite as urgent as I told him. Those are the two possibilities. I meant to tell him that he had to go to the first engineer straight away and tell him that we had to start the main engine right now. That was my intention and that was the words that I used. I can't rule out that he didn't consider it quite as urgent as I meant it, but on the other hand he appeared to understand what I told him.

215 CAPTAIN FILOR: This was all in Danish, of course?

INTERVIEWEE: Yes, sure.

216 CAPTAIN FILOR: Looking now at the chart which you - would it be fair to say that you used that chart, the one that is in front of you, that comes from the (Danish ship name)? - *MAGGA DAN*

(Chart shown to interviewee)

INTERVIEWEE: Yes, that's it. Yes, that's the one that I did use.

217 CAPTAIN FILOR: Are you aware of how reliable the soundings are on there? Perhaps - shall we say in the general anchorage position, in that circle; do you know how reliable they are there?

INTERVIEWEE: The depths that I have seen are reasonably consistent with those that are put on the map, but one of the hull underwriters' representative went with the "Lady Lorraine" to Macquarie Island. He was in fact the one that has made this map in 1960 on the "Magga Dan" and he told me that he used the ship's launch and simply ran it more or less in the tracks that you can see here and used the launch's echo sounder and then he has - as accurately as he could he has simply said, well, it took so and so long to run this track and I have divided up the echo sounder trace in equal parts for those five minutes and then I simply plot those depths. Of course, it is not a proper survey. You could more or less consider it as a reconnaissance, but it is consistent with what I

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

have seen, but it doesn't rule out, of course, that in between those two lines would be a depth which is not really consistent with - say there's eight here and 10 there, it could well be something else, a nine, obviously.

218 CAPTAIN FILOR: I appreciate that. Now when you were on the chart - here - you drew for us roughly the first position - and I appreciate this is an estimation, but you seem to be of the opinion that this is roughly where you touched initially, in that sort of area?

(Captain Filor indicates)

INTERVIEWEE: Yes.

219 CAPTAIN FILOR: Again, would you know how accurate the soundings are in that area?

INTERVIEWEE: I've never been there so I don't know. But as you said yourself, it is an approximation, so if those depths and the draught of the ship is not quite consistent with the grounding, there could be two things; one is that this is inaccurate, the other thing is that the swell actually caused the ship to ground - to touch the sea bottom.

220 CAPTAIN FILOR: That's the next point I was coming to. Can you estimate how big the swell was?

INTERVIEWEE: That's of course a bit hard. Well, looking at the wave action, it was obviously - it increased when we got closer to the shore because it grew more shallow, but my best guess would be a couple of metres at the - well, where we were sitting at the anchorage, and after that, when we started dragging the anchor, it would probably have increased slightly, getting closer to the shore, but I wouldn't have looked very closely at it then.

221 CAPTAIN FILOR: I just wondered, but a couple of metres sounds quite reasonable?

INTERVIEWEE: Yes, that looks pretty close to what I thought.

222 CAPTAIN FILOR: So, in fact you were anchored - your anchor position, although it was two cables from the

Grounding of "Nella Dan"

Investigation by C.W. Filor and T.M. Fitzpatrick

Interview of ARNE JACOB SORENSEN continued

shore, was quite a bit closer to perhaps a grounding position. It was closer to 1.2, 1.3 cables from where you might ground, in fact?

INTERVIEWEE: Yes. Well, of course there is a possibility that the actual grounding was here and it was 1.5, but, well -----

223 CAPTAIN FILOR: It was certainly closer than two cables - .2 of a mile?

INTERVIEWEE: Yes. Yes, I would say so.

224 CAPTAIN FILOR: I think you have answered this already, but obviously you haven't read this, but I just want to be sure in my own mind. Did you, at any stage, discuss with either Mr Lyons or any of the other Antarctic Division people the discharge of the oil?

INTERVIEWEE: Well, it has nothing to do with the Antarctic Division. In which sense?

225 CAPTAIN FILOR: Well, when you arrived, did you discuss how important it was to discharge the oil?

INTERVIEWEE: I don't think so. I doubt it. It's in the course of the operations that we had to carry out these tasks. They're of course not equally important, and early in the arrival - yes, we did discuss or agreed that there are certain priorities here, and there are two main priorities, and that's the ordinary supplies for the next year's run of the station and the oil, which is, in fact, as well part of the supply for the next year. Those are the main priorities, and then the second priority was building materials and all this concrete for the foundation for this satellite dome, so we did discuss priorities for what we wanted ashore first of all - well, rather, as soon as possible.

226 CAPTAIN FILOR: This is somewhat of a hypothetical question, I think, but were you aware - or would it have made any difference to your judgment if you'd known that, say, there were 120 days' worth of fuel on the island?

INTERVIEWEE: No.

227 CAPTAIN FILOR: So that wouldn't have changed your intention of -----

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

INTERVIEWEE: No.

228 CAPTAIN FILOR: Thank you. We understand that in fact you have standing orders which were the last master's standing orders but because they were consistent with your thoughts -----

INTERVIEWEE: Yes.

229 CAPTAIN FILOR: Do you have the standing orders at all?

INTERVIEWEE: No.

230 CAPTAIN FILOR: They stayed on board, did they?

INTERVIEWEE: Yes - well, I don't know how much of a description you've got of the last couple of days, but unfortunately we had a real mad rush when we had to leave the ship, and we had planned to pack up our things - all our important documents - for approximately 24 hours, but then around six hours after that decision we left the ship in a real rush and there was a lot left on board, including that and many other things. More unfortunately, as well, the radio log and the engine room log were lost as well.

231 CAPTAIN FILOR: Right. No, I do understand. This again is recapping. The decision to not pump oil on the first two days was made on the basis of the wind; is that correct?

INTERVIEWEE: Yes.

232 CAPTAIN FILOR: And the chief officer tells me that there was also a consideration that the pipeline got in the way of the LARCs or it could do; is that correct?

INTERVIEWEE: Yes, we might well have discussed that, yes.

233 CAPTAIN FILOR: Now, two things which interest me, too. When the crew got into survival suits I understand there was some difficulty. On one of the films there is one of the stewardesses, I think, with a very large survival suit with a very small stewardess inside it.

INTERVIEWEE: Yes.

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

234 CAPTAIN FILOR: Was this found to be a problem or would you like to make any comment on - could we do anything about this sort of aspect?

INTERVIEWEE: Well, survival suits are one size - well, the one that I know are. Well, I wouldn't rule out the possibility that one could think of having smaller sized survival suits. Then, of course, you would have to - well, we in fact do have them in the cabins so that they are personal things and there wouldn't be any mistake. If you have them on deck I really can't see any other possibility than having one size.

235 CAPTAIN FILOR: And presumably they are made for the largest person?

INTERVIEWEE: Yes. That is of course a problem, they are.

236 CAPTAIN FILOR: The largest common denominator?

INTERVIEWEE: Yes.

237 CAPTAIN FILOR: Now, the other thing that I understand is that, these survival suits, while they might be good in the water, for actually working the boat and climbing down ladders they are difficult.

INTERVIEWEE: Yes. I agree. They are. Yes, you will survive a long time if you are dropped in the sea, but if you have to do anything on the way from - getting from the ship to actually lying in the water, in a way they are more a nuisance than they are a help, but the thing is that they - of course it's much easier to take it on while you are standing on a reasonably stable deck, so there's a sort of a Catch 22 situation. The only thing which I can see is - and I haven't seen them, but at least I have seen pictures and seen brochures of some having loose gloves which you might have in a cord around your neck so that you actually did have your hands free, and then later on put on the gloves. Of course, there is a problem around the wrist, that's obvious. But I believe there are some made like that. How they work I don't know, but in some situations I'm sure they would be much better, but how they would be in the long run if you would be sitting in the water for 48 hours - I don't know if that would be a problem around the wrist.

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

CAPTAIN FILOR: Now, again talking about - sort of area for the future.

INTERVIEWEE: Yes.

238 CAPTAIN FILOR: Is it possible, in your view or is it practical - to have a buoy mooring fitted - or positioned - in Buckles Bay somewhere?

INTERVIEWEE: It was discussed a lot while the salvos^R were there and they being - at least on the "Lady Lorraine" being anchor handlers and being expert in those things, they appeared to have the opinion it was possible to make such a one. Well, I can't see why it couldn't be done and the pipeline could be run out to avoid the - the only real problem I see is in mooring to the buoy.

239 CAPTAIN FILOR: This is what I was wondering, whether the swell, which you have described for us, even when it is in the west, there is still the swell, would that be a big problem for you, mooring to a buoy?

INTERVIEWEE: Well, as the swell comes from here -----

(Interviewee indicates)

INTERVIEWEE: ----- then - we do at times have swell on the anchorage, quite a strong swell, so strong that we have to abandon the cargo operations, but - well, under normal circumstances you could say that there's not too bad a swell on the anchorage, but I still see it as a quite a nice piece of - sort of - seamanship to go in and moor to this buoy in sort of pretty close quarters. In fact, you have - in a way, if you are not careful, you might get yourself into more trouble than you avoid because you have the ship sitting here and you are making up this mooring, while if you go in and anchor, then you drop the anchor and that's it. Then you are - well, attached to the ground - well, then you have ground tackle. But here you are sitting for quite a while when you do this mooring operation, so it's not necessarily at all times an advantage. Well, it's understandable that all these ideas go through people's minds after such a real serious accident. But on the other hand, ships have been going to Macquarie Island since 48 and there have been many shipwrecks on Macquarie Island, but none since the Antarctic station was put up, so - we have with the

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

"Nella" been pumping in fuel - well, many times - well, since the ship started on the run, so - well, of course it's obvious it's bad enough to lose a ship, but one could well consider it as a unique situation. This weather pattern was very unusual, in my opinion, so if it is worth the effort to put in a mooring I am not too sure, really.

240 CAPTAIN FILOR: Right. Thank you. Is there anything you would like to add or anything you would like to say in addition?

INTERVIEWEE: Well, I wasn't aware of this computer printout of the depths. I got the impression, by the way, from talking to Magnus, that you asked about those transducers. Are you sure where they are, because I am? If you want explanation of where those transducers -----

241 CAPTAIN FILOR: I think the chief officer has told us, but if you would like to confirm, that would be very useful.

INTERVIEWEE: Well, the ones that worked on the ^{precision} position - depth recorder from which this is extracted, they are sitting here.

(Interviewee indicates)

242 CAPTAIN FILOR: That's frame 78, approximately?

INTERVIEWEE: Yes.

CAPTAIN FILOR: Right.

INTERVIEWEE: Either 77 or 78. All the others are sitting here. They are marked here, the others. And our own echosounder is here and here, the forward one and the aftermost transducer here.

(Interviewee indicates)

243 CAPTAIN FILOR: So that's by frame 40?

INTERVIEWEE: Yes. That's our aftermost. That's just forward of the main engine.

CAPTAIN FILOR: Thank you.

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

INTERVIEWEE: And our forward one, that one, and the others, which are insignificant in this context, they are sitting here. So the important one is for that computer, and they are sitting just about here.

CAPTAIN FILOR: Right.

INTERVIEWEE: And the other thing regarding that computer printout and your graph, as I wasn't quite prepared for it I didn't sort of start my mind cranking up, but I would say that if we look at it once again we - it may in fact tell us more accurately when it actually happened, because your graph shows this very sudden break and it appears to me that it would - might tell us either when or how long it actually took.

CAPTAIN FILOR: That graph was rather hurriedly done, so perhaps if you would like - you're not too keen -----

INTERVIEWEE: Yes, well -----

244 CAPTAIN FILOR: And this is what they used it for.

INTERVIEWEE: Since I would say that you, sort of, inferred that I looked out the window and went up to the bridge and there was an emergency on and I was the only one discovering it, but if it happened very fast, it could be a straight coincidence, I looked out straight when it happened. I don't know, but -----

CAPTAIN FILOR: Yes, I appreciate that point. Here we are now at 17:50.

(Captain Filor indicates on printout)

INTERVIEWEE: Yes.

245 CAPTAIN FILOR: And we are getting general depths here which possibly can be explained by the swing.

INTERVIEWEE: By the swell.

246 CAPTAIN FILOR: And swell, although I would expect them to be a bit more up and down. See, that's 14, 13, 12, so that's why I reckoned about two metres swell.

INTERVIEWEE: Yes.

Grounding of "Nella Dan"
Investigation by C.W. Filor and T.M. Fitzpatrick
Interview of ARNE JACOB SORENSEN continued

(Captain Filor indicates on printout)

247 CAPTAIN FILOR: So my best guess is that at 07:44.5, roughly, it started to touch and then the head swings progressively off over the next two, three minutes.

INTERVIEWEE: Yes.

248 CAPTAIN FILOR: So that's my guess when it went aground.

INTERVIEWEE: Yes, but still it surprises me just a little here where this is when we are grounding, but still it's hard to discern since I am sure that when I was on the bridge we had drifted quite considerably. When I arrived there on the bridge, and we had already started - the bow was already swinging toward starboard.

(Captain Filor indicates on printout)

249 CAPTAIN FILOR: So is there anything else you would like to add?

INTERVIEWEE: I wouldn't say so - no, not really.

CAPTAIN FILOR: Right, captain. Well, thank you very much for your co-operation. You've been very open and frank about the whole situation.

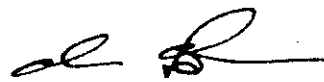
INTERVIEWEE: Well, that's the purpose of the hearing.

CAPTAIN FILOR: Yes, thank you very much.

CAPTAIN FITZPATRICK: Yes, thank you very much, captain.

(The interview was concluded at 3.53 p.m.)

HOBART 6/1 - 88.


ARNE SORENSEN
CAPTAIN