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VOLUME 23

STATE OF ALASKA

IN THE SUPERIOR COURT AT ANCHORAGE

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3		:
4	In the Matter of:	:
5	STATE OF ALASKA	:
6	versus	:
7	JOSEPH J. HAZELWOOD	:
8	----- :	:

Anchorage, Alaska

March 6, 1990

The above-entitled matter came on for trial by jury before the Honorable Karl S. Johnstone, commencing at 8:43 a.m. on March 6, 1990. This transcript was prepared from tapes recorded by the Court.

APPEARANCES:

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C O N T E N T S

WITNESSESSTATE'SDIRECT CROSS REDIRECT RECROSS

Professor William S. Vorus	-	3	39	48
	-	-	50	-
James A. Stogsdill	52	73	-	-
Richard W. Prouty	77	-	-	-

- - -

E X H I B I T S

DEFENDANT'SIDENTIFICATION IN EVIDENCE

AO		3	9
AP		3	9
AQ		3	9
AR		3	16

STATE'S

117		-	72
120		-	72
121		-	72
165		38	-
166		38	-
167		38	-
168		38	-

- - -

P R O C E E D I N G S

(Tape C-3654)

(Prior to commencement of the hearing, Defendant's Exhibits AO, AP, AQ and AR were marked for identification.)

THE CLERK: -- with Karl S. Johnstone presiding is now in session.

JUDGE JOHNSTONE: You may be seated. thank you. We'll resume the cross examination. You're still under oath, sir. Good morning, ladies and gentlemen.

MR. CHALOS: Thank you, Your Honor.

Whereupon,

WILLIAM S. VORUS

having been called as a witness by Counsel for the State, and having previously been duly sworn by the Clerk, was examined and testified as follows:

CROSS EXAMINATION

BY MR. CHALOS: (Resuming)

Q Good morning, Professor Vorus.

A Good morning.

Q I'd like to speak about your trip to San Diego. I think you said that, in San Diego, you met with Mr. Greiner --

A Yes.

1 Q -- with Mr. Cole and with Mr. Adams.

2 A Yes.

3 Q Anybody else present?

4 A Mr. Akroyd, the photographer.

5 Q Besides him, anyone else?

6 A There was an Exxon attorney present. That's my
7 recollection.

8 Q Now you viewed the damages on the bottom of the
9 vessel, did you not?

10 A Yes.

11 Q Is it fair to say that the damage that you saw was
12 the type that you would expect in a grounding on a rock
13 bottom?

14 A Yes.

15 Q And most of the damage that you -- I'd say that
16 the majority of the damage that you saw was in the fore and
17 aft direction?

18 A Yes.

19 Q You mentioned that you saw some evidence of
20 transverse damage or aforeship damage, is that right?

21 A Yes, very subtle.

22 Q Would you say you attribute it to the vessel
23 pivoting on the rock around Frame 23?

24 A Yes.

25 Q Now you use the word "subtle." What do you mean

1 by subtle?

2 A Well, the marks on the plating were subtle. The
3 marks of the plating were missing. There were transverse
4 marks on some of the plating that was still intact. I
5 think the damage to the longitudinals was less subtle, the
6 splaying transversely, which I could also -- would think
7 would be caused by that type of motion.

8 Q Well, you mentioned in yesterday's testimony that
9 you could see this damage if we looked at the pictures. I
10 have now put before you what's been marked into evidence as
11 Exhibits 125 through 150. Can you take a look quickly and
12 let us know where and what pictures you see that kind of
13 damage that you're talking about?

14 A To the longitudinals?

15 Q Well, to the longitudinals and also to the subtle
16 scratches that you're talking about.

17 A Is this a complete set of photographs?

18 Q Well, those are the photographs that Mr. Cole put
19 into evidence. I assume they're complete.

20 A Okay, all of these show the type of damage to
21 longitudinals.

22 Q All right, for the record, let's identify what
23 you're referring to. You're referring to Exhibits 142,
24 143, 144, 145, 146 and 147. And you say this shows the
25 damage to the longitudinals, is that correct?

1 A Yes.

2 Q Do you see in any of these pictures the subtle
3 scratches that --

4 A I don't know whether I do or not.

5 Q Take your time, take a look.

6 A I believe they're here, 146.

7 MR. CHALOS: Your Honor, may we have Professor
8 Vorus step up to the jury and show them what he's talking
9 about?

10 JUDGE JOHNSTONE: All right.

11 (The witness approaches the jury.)

12 BY MR. CHALOS: (Resuming)

13 Q Would you point out to the jury what you're
14 talking about in terms of subtle scratches?

15 A Photographs can be deceiving and this is not
16 complete. They can't photograph the entire bottom. But I
17 think in this region, as I interpret that photograph, you
18 see marks that are other than longitudinal. There's a
19 slight slant to them which would indicate a possible
20 rotation of the vessel about a point in this region.

21 Q What frame is that picture taken, can you tell?

22 A I'd say it's just forward of Bulkhead 23, around
23 18 or 19.

24 Q And what you're talking about, so the jury can
25 tell, are these marks right here --

1 A In here, yes.

2 Q -- these very faint marks

3 A Right.

4 Q There's no damage, it looks like, to that part of
5 the shell bottom plate.

6 A Well, you could only see them on shell plating
7 that was essentially undamaged.

8 Q Okay, that's fine. And that's the only photograph
9 out of the 25 I showed you that you see those subtle
10 scratches.

11 A Well, the photograph set is not complete. There
12 was very little plating that was undamaged that would show,
13 you know, distinctly marks of that type. I saw more in
14 person, viewing the bottom, than I can see from these
15 photographs.

16 Q It's true, is it not, Professor, that just by
17 seeing the scratches, these subtle scratches as you call
18 them, in the aforeship direction, you can't tell what the
19 source of those scratches was, can you?

20 A You mean rotation.

21 Q Well, you called them rotating, but you can't tell
22 what caused the vessel to rotate that would result in these
23 scratches, themselves.

24 A No.

25 Q It could have been tide. It could have been the

1 refloating attempt. It could have been in the initial turn
2 of the vessel after she ran aground.

3 A Could have been.

4 Q So there's no way to tell this jury that that
5 rotation was caused by someone using the rudder.

6 A No.

7 Q Now there was no indication, was there, that these
8 subtle scratches caused any further leakage from the
9 vessel, was there?

10 A The subtle scratches, themselves, certainly
11 didn't. Otherwise, there wouldn't have been subtle
12 scratches.

13 Q All right. And certainly those scratches that you
14 saw didn't affect the strength of the vessel in any way.

15 A No, (unintelligible) the transverse movement.

16 Q Okay. Now we spoke a little bit yesterday about
17 the controlling factor for the flow rate, do you recall?

18 A Yes.

19 Q And you mentioned it would be the size of the
20 smallest orifice on deck.

21 A Yes.

22 Q And in the case of the oil tanks, the smallest
23 orifice was a four-inch pressure vacuum valve?

24 A Only if the deck butterfly slider valves were
25 shut.

1 Q If the butterfly valves were open, then it would
2 be a combination of the four-inch and ten-inch valves?

3 A Well, four-inch, yes, and ten-inch, plus the
4 liquid breaker on the main.

5 Q Okay. In any event, the point that I'm driving at
6 is you could have a hole in the bottom that's a hundred
7 feet wide and a hundred feet long and the flow rate of the
8 oil coming out would still be controlled by either the
9 four-inch or ten-inch orifice on top.

10 A Yes.

11 Q Let's talk about the slider valves a second. Let
12 me show you what I've marked for identification as
13 Defendant's Exhibit AO, AQ and AP, which are three
14 different pictures of the same device, and ask you is that
15 the slider valves that you saw on the ship.

16 A Those are the slider valves.

17 MR. CHALOS: Your Honor, at this time, I offer
18 Exhibits AO, AP and AQ into evidence.

19 MR. COLE: No objection.

20 JUDGE JOHNSTONE: They're admitted.

21 BY MR. CHALOS: (Resuming)

22 Q Professor, would you hold up the picture that best
23 depicts the operation of the slider valve and show the jury
24 how the slider valve is opened and closed?

25 A Shall I get up?

1 Q If you'd like.

2 (The witness approaches the jury.)

3 THE WITNESS: This is the carved out tank access
4 hatch.

5 BY MR. CHALOS: (Resuming)

6 Q That closes, by the way, with this lid here,
7 right?

8 A Yes, there's a lid that shuts that and locks it so
9 it's air tight. This is the 12-inch feeder line for IG
10 coming from the 24-inch main. The 24-inch main run downs
11 the center of main deck. This is a pipe that comes into
12 the tank access hatch and supplies the inert gas to the
13 tank. This is a valve that's actuated by this hand wheel
14 that slides back and forth as a plate and you can see the
15 plate from the other side. The plate has a hole in it.

16 All right, now, in this position, that valve is
17 closed and the plate is roughly rectangular, such that when
18 it's in the retracted position, this hole is open to the
19 pipe and allows flow-through, that's the normal position.

20 When the valve is shut, this rectangular plate
21 passes through this slot, slides through that slot, such
22 that the portion of the plate that's solid then blanks over
23 the 12-inch pipe.

24 Q And all you have to do is turn this fly wheel here
25 to close the valve, is that correct?

1 A That's right, the valve is actuate by this hand
2 wheel.

3 Q Hand wheel, okay. That's a fairly simple process,
4 isn't it, to turn the wheel?

5 A I should think so.

6 Q Yesterday, you drew -- okay, do remember this
7 drawing here where you drew a ridge --

8 A Yes.

9 Q -- and you drew the course of the vessel? What
10 did you base this information on?

11 A Directly on the soundings that were done on
12 March 24th, the day after the grounding -- the day of the
13 grounding, as produced by Exxon and used in connection with
14 the salvage operation.

15 Q You're talking about what we marked as Exhibit
16 AK? Are you talking about these soundings?

17 A No, that's part of it. This was a package of
18 information I got as a letter from Paoli to McCall, which
19 instructed the Coast Guard as to the plan for the salvage
20 of the vessel.

21 Q I don't know if I've seen that letter, but let me
22 ask you this.

23 MR. COLE: I object to that. May we approach the
24 bench?

25 JUDGE JOHNSTONE: Yes.

1 (The following was said at the bench.)

2 MR. COLE: This is about the third time that Mr.
3 Chalos, in open Court, has said that we have not provided
4 him with stuff, without any basis, and he does it in front
5 of the jury and the purpose is to say that we're
6 (inaudible).

7 MR. CHALOS: (Inaudible.)

8 JUDGE JOHNSTONE: Well, no, the fact of the matter
9 is you have been saying, "I haven't seen that, yet," and
10 things like that. That's not a question; that's a
11 statement and you should ask questions, Mr. Chalos. Now
12 the next time you do it, I'm going to admonish you in front
13 of the jury. I've been waiting for something to occur on
14 this. You don't need to do those things. Just ask
15 questions.

16 (The following was said in open Court.)

17 BY MR. CHALOS: (Resuming)

18 Q Professor, with respect to the information
19 relating to the course, where did you obtain that?

20 A I just told you.

21 Q From that document that you just referred to?

22 A Yes.

23 Q This ridge that you just drew in, do you recall
24 what the soundings were for this ridge?

25 A It's around six fathoms.

1 Q Right at this point?

2 A Between six and eight. That ridge is also
3 identifiable, approximately, from the chart of the sound.

4 Q Well, that's what I wanted to ask you about. Did
5 you do any calculations with respect to the speed and the
6 position of the vessel at any particular time, let's say
7 from midnight until the time of the grounding?

8 A No.

9 Q Did you take the course, speed and position of the
10 vessel and overlay it on the chart?

11 A I've seen the overlay. There was an overlay done
12 in the CAORF simulation.

13 Q The CAORF report from Kings Point.

14 A Yes.

15 Q And you've looked at that and come to the
16 conclusions that you came to here.

17 A Well, I used specifically the soundings in
18 connection with salvage that were taken the day of the
19 accident, but I think that's consistent with the chart of
20 the reef and the course line that was dictated by the CAORF
21 simulation.

22 Q But you didn't actually plot it on the chart to
23 see if your theory holds up.

24 A I think if you look at the chart and the CAORF
25 simulation; you'll see that this is essentially what they

1 show.

2 Q Well, is it your testimony that the striking of
3 the reef as you've drawn it was about the time the vessel
4 was on heading 245 or 250?

5 A 247.

6 Q And that's because you see sort of a hitch in the
7 course recorder?

8 A I think it's consistent -- I can't say definitely
9 that the two are correlated, but that has been attributed.
10 That's one explanation of that slight course change, is
11 that that was the first contact with the bottom on 247.

12 Q Well, you'll agree, then, that there could be
13 other explanations besides the fact that the vessel might
14 have hit at that point.

15 A Yes, I haven't seen any others and I don't know
16 what another logical explanation would be, but it's not
17 been proved that that's case.

18 Q How about the helmsman putting on some counter
19 rudder at that point?

20 A Anything's possible.

21 Q Let me give you a hypothetical. If the vessel, at
22 the time that this hitch appears in the course recorder,
23 was in water that was about anywhere between 180 feet and
24 240 feet, would you agree that that wouldn't be indicative
25 of the vessel striking the bottom?

1 A Yes.

2 Q You'd agree.

3 A If it's in very deep water, then the course change
4 certainly would not be indicative of the vessel striking
5 the bottom.

6 Q Okay. Let me show you what we've marked for
7 identification as Exhibit AN, which is a sounding chart of
8 Bligh Reef, and ask you have you looked at this sounding
9 chart?

10 A No, I've never seen it before.

11 Q Then I take it you didn't plot any of the vessel's
12 courses or speed on a chart of this type.

13 A I've never seen this chart.

14 Q Okay. Before I move onto another subject, let me
15 show you what's been marked for identification as
16 Exhibit AR. Have you seen this one before?

17 A Yes.

18 Q It represents a schematic of the pressure vacuum
19 valves on this vessel, does it not?

20 A Yes.

21 Q Have you looked at this document in your
22 deliberations?

23 A Yes.

24 MR. CHALOS: Your Honor, I offer Exhibit AR into
25 evidence at this time.

1 MR. COLE: No objection.

2 JUDGE JOHNSTONE: It's admitted.

3 (Defendant's Exhibit AR was
4 received in evidence.)

5 BY MR. CHALOS: (Resuming)

6 Q Professor Vorus, without getting up, would you
7 point to the jury where the top of this valve is that would
8 lift in the event that pressure was exceeded? You have to
9 hold it up.

10 A Yes, I was looking at it. The extreme top that
11 looks like a bullet point is connected to a shaft which
12 goes down to a disc which seats about mid-valve. High
13 pressure, the response to high pressure from either the
14 four- or ten-inch line which lifts the disc off the seat,
15 lifts this bullet and air escapes around the bullet in the
16 top as it opens.

17 Q At what pressure would the valve lift up?

18 A Plus 2.75 psi.

19 Q That's pounds per square inch.

20 A Yes.

21 Q So long as the pressure is below 2.75 psi, the
22 valve stays shut, does it not?

23 A Yes -- well, no. If it's below minus one gauge,
24 then the vacuum elements open.

25 Q Well, I'm talking only in the relief sense.

1 A Yes.

2 Q 2.75, it stays shut.

3 A 2.75 I believe is the upper setting on both the
4 four- and the ten-inch.

5 Q Now have you done any calculations, Professor, as
6 to what pressure was used in the tanks to refloat this
7 vessel?

8 A I've seen documents that specify that pressure.

9 Q Do you recall what that pressure was?

10 A It was not to exceed five psi.

11 Q Do you know what the actual pressure was in the
12 tanks when the vessel was refloated?

13 MR. COLE: Objection, relevance.

14 MR. CHALOS: Your Honor, this goes to his
15 calculations, the calculations that he did that the vessel
16 would have capsized and sank after it came off the reef.

17 JUDGE JOHNSTONE: Was that contained in your
18 information provided you?

19 THE WITNESS: The Exxon salvage plan specified
20 those pressures.

21 JUDGE JOHNSTONE: You may ask the question.

22 BY MR. CHALOS: (Resuming)

23 Q Do you know what the actual pressure was in the
24 tanks when the vessel was refloated?

25 A I know that the plan specified that they not

1 exceed five psi and to use pressure needed to achieve the
2 ship attitude.

3 Q But you didn't do any calculations that would have
4 indicated what kind of pressure was in the tank when the
5 vessel was refloated.

6 A I didn't deal with the refloating issue. I do
7 know, however, that these valves were blanked.

8 Q At the time of refloating.

9 A Yes..

10 Q Let's talk a little bit about your calculations.
11 I believe you testified that all your calculations were
12 made on a computer.

13 A Yes.

14 Q And this was a program that you'd written.

15 A Yes, we wrote specifically for this job.

16 Q And the figures that you obtained both in terms of
17 flow rates and in terms of the vessel's stability after she
18 came off the reef were all run through this computer and
19 this program, were they not?

20 A Yes.

21 Q How long did it take you to run the various
22 scenarios that you spoke about yesterday?

23 A You mean computer time or real time?

24 Q Well, the time from putting in the information,
25 letting it run through the computer and then getting back

1 the results.

2 A I think the execution time on an IBM main frame
3 was ten second -- we ran in 30-second intervals.

4 Q No, what I'm talking about is you had to gather
5 certain information. You had to input it into the
6 computer. The computer had to do whatever it did on the
7 basis of the program that you had and then it gave you some
8 results, right?

9 A Yes.

10 Q How long did that whole process --

11 A That's a very hard question to answer. We
12 developed this program and we assembled information as we
13 went along. I mean the initial input was developed early.
14 It was refined as we looked at it and studied the problem.
15 I can't give you an answer to that.

16 Q Would you say that the process that you just
17 described took well over six to nine months?

18 A No.

19 Q I'm talking about gathering the information,
20 refining it, tailoring it, doing whatever you had to do.

21 A Look, we didn't have the information until the
22 middle of January.

23 Q And when did you write up your report?

24 A I haven't written a report.

25 Q Is there a particular reason why you haven't

1 written a report?

2 A I've written some brief memoranda, indicating the
3 bottom line of our findings. There's been no report
4 written because we were still developing these results at a
5 rather late stage.

6 Q Is it your usual practice to prepare a report when
7 you're asked for your expert advice?

8 MR. COLE: Judge, I object and may we approach the
9 bench?

10 JUDGE JOHNSTONE: No, objection sustained as to
11 relevance.

12 BY MR. CHALOS: (Resuming)

13 Q Professor, you wouldn't expect a captain who has
14 just run aground, with a ship spewing oil, to be able to
15 take the information that you gathered over a period of
16 time and ran through your computer and do the calculations
17 that you did in his head, would you?

18 A Well, that's a question very much like the one you
19 asked me as to whether or not I thought about the center of
20 buoyancy and the center of gravity when I ran my sailboat
21 aground. I'm familiar with those things and, yes, that
22 kind of information goes through one's head. I think if
23 you're familiar with the considerations involved, you go
24 through a quick computational process like that.

25 Q But the information that you spoke about, the

1 detailed information as to flow rates, as to stability,
2 those are the kind of things that one can run through in
3 his head in a moment of grounding and come up with specific
4 numbers.

5 A Not to do precise calculations, but I mean that's
6 all we're doing here with this kind of analysis, is we're
7 using it to help us make judgments. I mean engineering is
8 a science of successful approximations and that's all this
9 is being used for.

10 Q Well, you're using it to make judgments after the
11 fact, isn't that right?

12 A I'm using it after the fact to make judgments,
13 yes.

14 Q In other words, you were given a task and the task
15 that you were given was, "If this vessel came off the reef,
16 in the worst scenario, tell us what would happen."

17 A That was the scenario I've done, yes.

18 Q And the analysis that you did was limited to
19 certain scenarios, five scenarios I think you said.

20 A Well, I did enough that I felt that I was able to
21 make some rather broad judgments about what the
22 consequences of that extraction from the reef would be. I
23 can't -- you can't run every case, just like you can't
24 process every case mentally. But I think I did enough so
25 that the conclusions are generally valid.

1 Q Valid for those particular scenarios that you ran.

2 A Well, those particular scenarios showed me enough
3 to allow me to make some generalizations beyond those
4 specific cases.

5 Q And would you call your conclusions
6 generalizations at this point?

7 A They're generalizations with some constraints.

8 Q We'll get into that. Let me ask you this. I
9 notice in your calculations that you use a draft of 56 feet
10 coming off the reef.

11 A Yes.

12 Q The evidence in this case is that the draft at the
13 time of the grounding, shortly after the grounding, was 50
14 feet.

15 MR. COLE: Objection, Your Honor, that's not what
16 the evidence is.

17 MR. CHALOS: It certainly is, Mr. Cole.

18 MR. COLE: It's what Mr. Kunkel put in as an
19 estimate and that's all it is.

20 MR. CHALOS: All right, let me rephrase the
21 question.

22 JUDGE JOHNSTONE: All right.

23 BY MR. CHALOS: (Resuming)

24 Q Have you done any calculations using the estimate
25 of 50 feet as a draft?

1 A No, the evidence was contradictory. Mr. Kunkel's
2 testimony said the vessel was at even keel, which means it
3 had no list. Obviously, it's grounded on the starboard
4 side. If the starboard side is at 50 feet, the vessel is
5 not at even trim. And there wasn't -- I just didn't feel
6 that there was consistent input available to assume the
7 departure attitude, draft, heel and trim was conservative
8 from the standpoint of predicting whether or not the ship
9 would survive.

10 Q Well, if the draft was less than 56 feet, how
11 would that affect your results?

12 A The oil would flow out faster, such that when it
13 came off, it would sink quicker.

14 Q But you didn't do any calculations to prove that.

15 A Well, that's the generalization I'm talking about.

16 Q Okay. Now in doing your floor rates, did you
17 consider the check valve in the IG system, the nonreturn
18 check valve in the IG system?

19 A You mean the deck seal?

20 Q No, I'm talking about the nonreturn check valve.

21 A I'm not sure, we may be having trouble with
22 semantics here. There's a shut-off valve in the engine
23 room.

24 Q No, I'm not talking about that.

25 A Then there's the deck seal.

1 Q Did you consider that?

2 A The deck seal was assumed to allow no flow in
3 either direction.

4 Q In your calculations.

5 A Yes.

6 Q Now I noticed that in your calculation, you
7 assumed that all of the tanks, the tank walls, the
8 bulkheads remained intact, is that correct?

9 A Yes.

10 Q You know from the evidence here that there was --
11 and from what you saw down in San Diego -- that there was
12 damage to the bulkheads, themselves, was there not?

13 A Yes.

14 Q And in a situation of the ballast tanks of the
15 starboard side, you had a mixture of oil and water and the
16 time of the grounding, did you not?

17 A Excuse me, repeat the question.

18 Q In other words, when the bulkheads were damaged,
19 oil and water got into the ballast tanks from the Number 2
20 center tank.

21 A Yes.

22 Q Did you consider that --

23 A No.

24 Q -- in your calculations?

25 A No, I did not.

1 Q Is there a particular reason why not?

2 A It's very hard to qualify. It's hard to believe
3 that there was much oil floating on top of the water in the
4 ballast tanks because it was the lower extremity of the
5 bulkheads that were damaged. You may still get some oil
6 flow into the tank, but the tank bottom is also open, so
7 it's -- water is entering at the same time. And at some
8 point, the flow of oil into the tank will be blocked by the
9 level of water in the tank.

10 Q But the fact of the matter is you didn't do any
11 calculations to see how that would affect your stability
12 calculations.

13 A My judgment was this knowledge is not exact. My
14 judgment was that it's not a very important factor.

15 Q Now do you know or have you done any calculations
16 to determine how much of the ship was resting at the bottom
17 after the grounding?

18 A No.

19 Q Have you done any calculations to show the tons
20 aground after the grounding?

21 A No.

22 Q In your scenarios, the four or five scenarios that
23 you spoke about, the vessel has come off the reef at
24 various intervals.

25 A Yes.

1 Q How did the vessel come off the reef?

2 A I haven't addressed how it came off. It was
3 assumed to -- at time zero, at the initial instant, it was
4 freed from the reef, period, and allow to free float.

5 Q Now you've spoken to Mr. Milwee and I take it
6 you've studied some of the information that he supplied.

7 A Yes.

8 Q Do you agree with his assessment that it was
9 impossible for this vessel to come off in the condition
10 that she was in, that is impaled on a rock?

11 A Well, obviously, it didn't, it didn't come off,
12 and I think that's as good a proof as any that it wouldn't
13 come off.

14 Q Do you agree from the damage that you saw in San
15 Diego that this vessel was impaled on the reef?

16 A It was in the claws of the rocks, there's no
17 question about that.

18 Q Now your calculations, therefore, your scenarios
19 are just sheer speculation, are they not, if the vessel
20 couldn't come off the reef?

21 A Yes, but you know, again referring to the
22 soundings, it looks like if the turn had been a little less
23 gradual, for example, the momentum might not have been
24 dissipated as quickly, it might have hung up a little
25 closer to the stern and it very well might have come off.

1 Q Okay, but that's speculation, as well, because we
2 know that she was impaled and she didn't come off.

3 A She didn't come off.

4 Q Okay, let's take your first scenario. You say
5 this vessel came off at ten minutes after the grounding, is
6 that correct?

7 A Well, the first scenario was that it holed, but it
8 never grounded.

9 Q In other words, she holed and she went right over
10 the reef and kept going.

11 A Just kept -- the momentum carried it over the
12 second ridge, just like it did the first one.

13 Q Well, of course, that didn't happen in this case.

14 A What didn't happen?

15 Q The ship didn't hit and continue on.

16 A No, it didn't.

17 Q Didn't.

18 A Did not.

19 Q Did not, okay. Let's take your second scenario,
20 she came off the reef ten minutes after the grounding.

21 A Five, five minutes.

22 Q Oh, five minutes, okay. Assume for the moment
23 that the vessel grounded at 12:10. That would have been at
24 12:15, right?

25 A Yes.

1 Q Yes, 12:15 in the morning. Well, that didn't
2 happen.

3 A No.

4 Q Let's take your third scenario. That was what,
5 ten minutes after the grounding?

6 A Yes.

7 Q If the grounding occurred at 12:10, that would be
8 at 12:20, right?

9 A Yes.

10 Q That didn't happen, either.

11 A No.

12 Q What's your third scenario -- fourth scenario?

13 A 15.

14 Q That would be 12:25 by my calculations.

15 A Yes.

16 Q That didn't happen, either.

17 A No.

18 Q And what was your fourth one -- fifth one?

19 A Well, at that point, I stood back and looked at it
20 and it was obvious to go on with this, we'd not learn
21 anything new because adding the time from floating to
22 sinking to the time on the reef, those times were getting
23 less and less. And in fact the longer it stayed on the
24 reef before refloating, the quicker it sank and it was
25 obvious that that trend would continue.

1 Q Okay. But of course that didn't happen, either.
2 In other words, it didn't come off at some later time, an
3 hour or two or three hours later.

4 A No, it did not.

5 Q Now the scenarios that you spoke about, the four
6 or five scenarios, they make certain assumptions, do they
7 not, once the vessel comes off the reef?

8 A Well, any analysis of that type makes assumptions.

9 Q But I want to get into the assumptions. The major
10 assumption that you make is the vessel comes off the reef
11 and no further action is taken by the crew to do anything,
12 is that right?

13 A Well, there was a parallel set of scenarios at the
14 same times with the slider valves assumed to be shut
15 immediately upon extraction.

16 Q Let me ask you about that. You said that you did
17 some calculations for that scenario.

18 A Yes.

19 Q And that scenario indicated that if they shut the
20 IG valves at the same time it came off, the vessel would
21 have stayed afloat.

22 A For starting times of zero, no grounding, five
23 minutes for the first two, it indicated that the vessel
24 would reach equilibrium, that all the flow interchanges
25 would stop and it would still be floating.

1 Q Now you didn't make any drawings or present us
2 with any calculations in that regard, did you, for that
3 scenario?

4 A You have the results of those calculations.

5 Q Of the one where the vessel floats.

6 A Yes, yes, with the slider valves closed.

7 Q You didn't make any drawings in that respect, did
8 you, showing the vessel floating?

9 A No.

10 Q Okay. Did you, as part of your scenario, consider
11 the possibility -- let me take that back and ask you -- in
12 your scenarios, as I see it, the vessel comes off the reef
13 and starts to get heavy on the starboard side --

14 A Yes.

15 Q -- because the oil's coming out and water's coming
16 in. Ultimately, she starts to roll to the starboard side
17 and she takes on more water on that side and as she rolls a
18 little bit further, she takes on additional water and the,
19 finally, she capsizes.

20 A Well, and the trim is trimming down by the
21 ballast.

22 Q Ahead and then flipping over.

23 A That's correct.

24 Q That's your scenario, right?

25 A Well, that's my result. It's the prediction.

1 Q And it's also your four scenarios.

2 A Yes, in all four cases, the basic mode is what we
3 predict.

4 Q Did you, when you were doing these calculations,
5 did you make any calculations for the possibility that the
6 vessel's crew would ballast down the starboard side before
7 the vessel started to go to starboard?

8 A Ballast the starboard side?

9 Q The port side, rather.

10 A Well, I thought of that and I just can't imagine
11 that one would take on more water in that circumstance.
12 It's the water that's going to sink the ship ultimately and
13 it seems that that would be a last resort, to start opening
14 sea valves on the starboard -- on the port side to try to
15 balance the heel.

16 Q Well, how about in conjunction with some other
17 actions, for instance, like closing the IG valves, getting
18 some buoyancy and ballasting down, prevent the vessel from
19 going to starboard? Did you consider that?

20 A Well, I considered that.

21 Q But you didn't do any calculations.

22 A There's very little time. I think that the first
23 30 minutes, it's not obvious that there's even a problem.
24 There's a subtle roll back from port to starboard. I don't
25 see anybody getting too alarmed. But it's like felling a

1 tree. It's like a lumberjack cutting down a tree. It
2 starts very slowly and then accelerates. And I think after
3 30 minutes, people got to worry about things other than
4 what they're going to do to save the ship.

5 Q That's all very well to say.

6 A There's no time. There's really very little time
7 here.

8 Q Well, the fact of the matter is the answer to my
9 question is you didn't do a calculation.

10 A Well, I did some of these mental calculations you
11 keep referring to.

12 Q But you didn't run it through your computer to see
13 if the vessel would stabilize and stay afloat.

14 A No.

15 Q I take it, then, you also didn't consider the
16 possibility of control flooding the Number 4 starboard.

17 A By air?

18 Q Water, air.

19 A Control -- I don't understand your question.

20 Q Well, that's because you confused it. Did you
21 consider controlling the water coming into Number 4
22 starboard by using the vessel's pumps?

23 A No.

24 Q Did you consider the possibility that the crew may
25 have pumped air into the Number 2 starboard or into the

1 Number 4 starboard?

2 A I don't think -- I mean they did that in salvage,
3 but you've got to blank the vents. There's no way to shut
4 the vents off.

5 Q You mean the PV valve.

6 A No, I mean the vents in the ballast tanks. I
7 think you were referring to the Number 2 ballast tank.

8 Q Right. How big are the vents in the Number 2
9 ballast?

10 A There's one four-inch and one six-inch vent and
11 when they salvaged the ship -- I mean they refloated the
12 ship by -- largely by pumping up the fore peak and the
13 ballast tanks with air. But there was some amount of time
14 required to prepare the ship to do that, I think a matter
15 of days, to build blanks for all that vent, those vents, to
16 make them airtight.

17 Q How about just taking a piece of wood and taping
18 it down in a hurry? How about just stuffing a shoe into
19 it? How about somebody's coat? Did you ever consider
20 that?

21 A I believe the pressures -- I don't believe you
22 could airtight those vents that way.

23 Q But you didn't do any calculations to figure out
24 whether you could.

25 A I just don't see that as a viable possibility.

1 Q And you didn't consider it as being a viable
2 possibility.

3 A I'm not going to do calculations on things that I
4 think are unreasonable. I don't have time for that.

5 Q It's true, is it not, that the scenarios that you
6 took were specifically designed to show the ship capsizing
7 in all modes --

8 A No, it is not.

9 Q -- except for the one that you say about the IG
10 valves being closed?

11 A I'd like to take a minute here. I really object.

12 Q No, you have to answer the question.

13 A I did not contrive the calculations to show the
14 ship would sink.

15 Q But you didn't do any other calculations, such as
16 ballast calculations. You didn't do any calculations where
17 air may have been pumped in.

18 A There's no indication the crew was doing anything
19 of the types that you indicate.

20 Q And there's also no indication that the vessel is
21 coming off the reef, either, but yet you did your
22 calculations.

23 A Under slightly different conditions of that
24 grounding, the vessel could have come off under those
25 actions. And there were no steps that I could see that

1 were being taken to do any of the things that you're
2 referring to.

3 Q Well, of course, you weren't there, so you don't
4 know what was in people's minds.

5 A I've read the testimony.

6 Q Well, since your situations are hypothetical,
7 sheer speculation, I'd like you now to, if you will, take
8 this hypothetical. Suppose the crew did ballast down.
9 Would that affect the rate at which the ship capsized or
10 didn't capsize?

11 A It would affect the capsizing situation. You're
12 very likely then just going to founder the ship. You know,
13 it doesn't capsize; it simply sinks by having too much
14 water aboard.

15 Q But you didn't do any calculations for that,
16 either.

17 A No.

18 Q Sir, did you consider the possibility that the
19 crew -- if the vessel came off and the crew saw that it was
20 starting to become a dangerous situation that they would
21 run right back onto the reef?

22 A The situation that I considered was the ship
23 coming off the reef as she was resting on the reef and
24 evaluating what would have happened in time.

25 Q But again, with no particular idea in mind how the

1 vessel would have come off or the fact that she might not
2 have come off at all, in fact, wouldn't have come off,
3 according to the testimony, right?

4 A That's -- I explained the case I ran.

5 Q Let's talk about the strength calculations.
6 You've done some strength calculations.

7 A Yes.

8 Q And you found the vessel to be sufficiently strong
9 when she came off the reef, right?

10 A I found that the stresses were not excessive. We
11 evaluated stresses at each of these time steps, a half
12 minute apart, and the danger was in capsizing and sinking
13 and not breaking up.

14 Q Did you do any calculations as to the vessel's
15 strength at the first low tide?

16 A We had to calculate the section degradation, the
17 section of the beam that bends. That section's degraded by
18 the damage. We had to do that calculation to use later in
19 the stresses. It was consistent with calculations made by
20 others in connection with the salvage operation.

21 Q And at the time of the first low tide, you found
22 the ship to have sufficient strength to withstand breaking.

23 A Yes, because the midship section crushed,
24 therefore relieving the bending.

25 Q It's true, is it not, that there was nothing done

1 after the grounding that it in any way appreciably affected
2 the strength of this vessel.

3 A Well, I think that the movements on the reef, the
4 splaying of the longitudinals, not quantifying it, it
5 certainly didn't do the strength any good and I think, in
6 fact, further degraded it.

7 Q But you didn't do any calculations to find out if
8 it affected it in one way or the other, the overall
9 strength I'm talking about.

10 A I think the effect of that is in the --

11 Q The answer is either yes or no. Did you do any
12 calculations?

13 A Yes.

14 Q You did calculations?

15 A I did the calculations of the degradation and
16 section of the beam after the grounding. Included in there
17 were any rotational motions which further reduced the
18 effectiveness of the longitudinals.

19 Q And, again, the rotational motion you cannot
20 pinpoint. You can't say whether it was from the vessel
21 turning after the initial grounding or from the vessel
22 resting down on a rock or anything.

23 A We know that the vessel was rotated. I don't
24 know, there may have been other rotations occurring for
25 different reasons. I'm not aware of any others.

1 Q Now it's true, is it not, that if the vessel --
2 the fact that the vessel can come off the reef -- well, let
3 me withdraw that.

4 MR. CHALOS: Your Honor, I have no further
5 questions.

6 MR. COLE: Before I get started, I'm going to move
7 for the admission of Plaintiff's Exhibit Number 159. (

8 MR. CHALOS: No objection.

9 JUDGE JOHNSTONE: 159 is admitted.

10 (State Exhibit 159 was
11 received in evidence.)

12 MR. COLE: 168.

13 MR. CHALOS: No objection.

14 JUDGE JOHNSTONE: 168 is admitted.

15 (State Exhibit 168 was
16 received in evidence.)

17 MR. COLE: 166.

18 MR. CHALOS: No objection.

19 JUDGE JOHNSTONE: It's admitted.

20 (State Exhibit 166 was
21 received in evidence.)

22 MR. COLE: 165.

23 MR. CHALOS: No objection.

24 JUDGE JOHNSTONE: Admitted.

25 (State Exhibit 165 was

1 received in evidence.)

2 MR. COLE: 167.

3 MR. CHALOS: No objection.

4 JUDGE JOHNSTONE: It's admitted.

5 (State Exhibit 167 was
6 received in evidence.)

7 MR. COLE: 169 through 173.

8 MR. CHALOS: I object. Your Honor, those are
9 scenarios that didn't occur in this situation. They're all
10 hypotheticals, sheer speculation. And I think that given
11 the evidence in this case that this vessel would not have
12 come off the reef, they'll only confuse the jury.

13 JUDGE JOHNSTONE: Would Counsel approach the
14 bench?

15 (The following was said at the bench.)

16 JUDGE JOHNSTONE: I'm going to withhold ruling on
17 these at this time (inaudible).

18 JUDGE JOHNSTONE: The Court reserves ruling on the
19 last exhibits. We'll take them up at a later time.

20 BY MR. COLE: (Resuming)

21 Q Now Mr. Chalos showed you what's been identified
22 as Defendant's Exhibit Number AR. That was the PV valve,
23 is that correct --

24 A Yes.

25 Q -- at the time of the Exxon Valdez? And where

1 would that have been located on this -- on the deck of the
2 Exxon Valdez?

3 A Well, there's a small, four-inch valve located on
4 a line in each one of the cargo hatches and then there are
5 two larger ones -- those are four inches. There are two
6 ten-inch size. This covers 2-1/2 to ten inches. It's the
7 same valve in different sizes. But there are two located
8 on ten-inch lines off the 24-inch main.

9 Q Now Mr. Chalos talked to you about one of the
10 purposes, which is to lift. What is the other purpose of
11 these valves?

12 A The other purpose is to respond to vacuum, to
13 similarly lift, if the pressure falls below one -- in the
14 tanks -- access hatches, it's minus one pound per square
15 inch vacuum and on the main, I believe it's minus one-half
16 pound per square inch vacuum.

17 Q So when a vacuum is created within the tank below
18 the minus one, which could be caused by oil rushing out,
19 that automatically opens to allow air to come in, then, is
20 that correct?

21 A Yes.

22 Q How do you shut that off to stop that from
23 happening?

24 A There's no shut-off mechanism on this valve.
25 That's because this valve is considered to be protection

1 for the system and they want it to be fail safe. There's
2 no shut-off.

3 Q So you can't go up there, like on the slider
4 valves, and just turn a wheel.

5 A No.

6 Q Now Mr. Chalos asked you about the slider valves
7 and these are valves that are over the ballast tanks, is
8 that correct?

9 A No, they're over the cargo tanks.

10 Q And where are they located?

11 A They are indicated by this little X figure in the
12 feeder lines off the main, going to each of the cargo
13 tanks.

14 Q And if you wanted to close all the slider valves
15 under your scenario where the vessel floated, would you
16 have to close every one of these things?

17 A Well, the Number 4 -- please repeat the question.

18 Q When you ran your scenario where the vessel
19 floated, were all the slider valves closed?

20 A Yes.

21 Q And that would have had to occur either at the
22 time of the grounding or within ten minutes of the
23 grounding.

24 A The assumption was that the valves were open
25 during the time that the ship was on the reef and at the

1 time they came off, they were all closed.

2 Q Mr. Chalos asked you about what results you were
3 asked to reach in this case. Were you asked to reach any
4 particular results?

5 A No, I objected to the accusations of being put
6 forth here.

7 MR. CHALOS: Your Honor, I move to strike that.
8 That's not responsive. The witness is making a speech
9 here.

10 JUDGE JOHNSTONE: Is there anything other than the
11 nonresponsiveness that's objectionable?

12 MR. CHALOS: Yes, Your Honor, I think that the
13 speech he's making is prejudicial. He was asked whether he
14 had been asked by the DA to reach a certain opinion. He
15 said no. Then he wants to expound on it.

16 JUDGE JOHNSTONE: Unless there's a substantive
17 objection you can make, nonresponsiveness is an objection
18 only the person making the inquiry can make. Since there's
19 no real objection to it, the objection is overruled. You
20 may continue.

21 THE WITNESS: I think the State conducted itself
22 most properly in this case, in my case. I can't speak for
23 the other experts, but Mr. Adams was --

24 JUDGE JOHNSTONE: Excuse me just a second.
25 Counsel approach the bench please. Excuse this

1 interruption.

2 (The following was said at the bench.)

3 JUDGE JOHNSTONE: Now we're not going to get into
4 this, whether the State acted properly or that the _____
5 acted properly. And let's make it clear now, when you say,
6 "I object because it's nonresponsive," that's not a real
7 objection. That's Mr. Cole's objection. He can control
8 his witness. If you have a real objection, such as
9 relevance or hearsay (inaudible) would otherwise sustain
10 the objection, you can raise that now. What he thinks the
11 State's actions are is not relevant. I'm not going to --
12 I'm going to take some control of this. I'm not going to
13 let the jury hear that.

14 (The following was said in open Court.)

15 BY MR. COLE: (Resuming)

16 Q When you were asked to do this project, did you
17 know at that time whether this vessel would have floated
18 upon -- would have capsized or reached equilibrium upon
19 refloating?

20 A I did not and I told you that.

21 Q The one -- one of the results that you ran is that
22 the vessel never became grounded, but just sustained the
23 damage that it did, is that correct?

24 A Yes.

25 Q And what was the result of that?

1 A That it would capsize.

2 Q Within what time, do you remember?

3 A I believe it was 85 minutes.

4 Q Now you used the word splaying in discussing how
5 the longitudinals running down the length of the vessel
6 looked to you. What do you mean by splaying?

7 A A distortion across the ship, across the --

8 Q Can you use those diagrams to demonstrate to the
9 jury what you're talking about? Do you need to identify --
10 you can step forward if you like. Before you do that,
11 you're referring to Plaintiff's Exhibit Number 145, is that
12 correct?

13 A It's the -- you're looking at the bottom, so the
14 plane of the bottom is here. You see that these
15 longitudinals are bent across the vessel, which would come
16 from forces applied across the bottom, which could be due
17 to the rough contour of the reef rocks, a catching on the
18 lower -- the edges of the longitudinals as the ship moves
19 transversely due to rotation.

20 Q Now you said that you observed crushing damage in
21 the area of Bulkhead 23, is that right?

22 A Yes.

23 Q Could you reconstruct what damage had occurred to
24 that area before the crushing, during the tides?

25 A During the low tide.

1 Q Before the low tide. Can you -- is it possible to
2 reconstruct what damage occurred before the first low tide?

3 A No.

4 Q Why is that?

5 A The damage pattern that existed before the tide
6 went out was obliterated by the crushing of the structure
7 in that area.

8 Q Does that mean that there was not damage done by
9 that twisting motion?

10 MR. CHALOS: Objection, Your Honor, this is sheer
11 speculation and leading, as well.

12 JUDGE JOHNSTONE: Mr. Cole, how can this witness
13 answer that when he said there's no way to tell?

14 MR. COLE: He says that there's no evidence of it,
15 but he can testify as to what his opinion is as to what
16 damage would have occurred from this.

17 JUDGE JOHNSTONE: Objection sustained.

18 BY MR. COLE: (Resuming)

19 Q Did you have any conversations with anyone about
20 the slider valves being open or closed at this time, when
21 the vessel became grounded?

22 A Yes.

23 Q Who was that with?

24 A It was with both Mr. Lights and Mr. Kunkel.

25 Q Do you know when the slider valves were closed?

1 A No. I know that they were not closed at the time
2 of the grounding.

3 Q Mr. Chalos asked you a question about whether or
4 not the captain would know information that you calculated
5 from your computer. Would you just briefly describe for
6 the jury what causes this vessel that's like this -- how do
7 the ballast tanks in the ballast of this vessel keep it
8 afloat?

9 A Well --

10 Q Where are the ballast sections in this thing?

11 A Well, the ballast tanks are those with the paper
12 on top. This is the valve. So this is the Number 2 tank.
13 The center region is oil. But the two outside tanks are
14 ballast and they were dry at departure. The fore peak was
15 also dry, which is up in the extreme bow. The Number 4
16 tanks are also ballast tanks on the outside. They were dry
17 at departure. Otherwise, the tanks were collectively about
18 85 percent full of oil.

19 Q Is the engine room a ballast section on this
20 vessel?

21 A Yes, the engine room is also ballast aft of the
22 bulkhead on the Number 5 tank. That's buoyant. The fore
23 peak is buoyant. Generally, the mid-region of the vessel
24 is not buoyant, but the ballast tanks spaced at these
25 intervals provide buoyancy to help support the load, the

1 cargo load, throughout the mid-body.

2 Q And if a vessel was traveling at about 11.25 or 45
3 or 75 knots and struck a reef head on and the captain was
4 told that he had water in his fore peak and his starboard
5 tanks, both Number 2, starboard ballast Number 2 and
6 Number 4 showed water or some fluid coming in, what would
7 that tell him about how much buoyancy he had left?

8 MR. CHALOS: Objection, Your Honor. I object on
9 foundation. Without more facts, I don't think this witness
10 can answer that. And, secondly, this man is not a
11 captain. How can he speculate what a captain would know or
12 think with that information?

13 JUDGE JOHNSTONE: You've gone beyond the scope of
14 this witness' expertise in that question. Objection
15 sustained.

16 BY MR. COLE: (Resuming)

17 Q If you were told that amount of information, how
18 much -- how many other tanks would be intact to support
19 this vessel, stabilitywise?

20 MR. CHALOS: Objection, again, Your Honor, no
21 foundation.

22 JUDGE JOHNSTONE: Objection overruled.

23 THE WITNESS: The Number 2 and Number 4 ballast
24 tanks on the port side in this scenario would still be
25 buoyant, as well as would the engine room, from the forward

1 engine room bulkhead to the stern.

2 Q Does the fact that oil may have mixed with the
3 water that was coming into the ballast tanks on the
4 starboard side 2 and 4 change your conclusions that you've
5 reached in this case?

6 A No. As I explained, I don't think it was very
7 much oil, considering the physics of the process as it were
8 occurring, and it had no significant effect on my
9 conclusion.

10 Q And if, as in Mr. Chalos' hypothetical, you
11 ballast down the port side, what happens to the vessel
12 then?

13 A Well, water on the port side would tend -- we're
14 approaching a situation with this type of attitude, with
15 the bow slightly down, but it's taking a very extreme heel
16 angle. Pumping water or opening the sea valves on the port
17 side would tend to reduce the heel angle. But adding water
18 forward would tend to increase the trim down in the bow and
19 increase the displacement of the vessel so that if the
20 danger of capsizing is reduced, the danger of foundering,
21 which is just sinking, down by the bow is increased.

22 Q How does someone --

23 MR. COLE: I have nothing further.

24 MR. CHALOS: Just a few questions, Professor.

25 RE-CROSS EXAMINATION

1 BY MR. CHALOS: (Resuming)

2 Q Again, all your hypotheticals omit any action by
3 the crew whatsoever, is that correct, except the one where
4 the valves are closed?

5 A Yes.

6 Q And, again, you didn't do any calculations with
7 respect to the ballasting down partially or fully on the
8 port side.

9 A I started to, but I just didn't see that that was
10 -- I couldn't get excited about it. I didn't think it
11 could do anything for me.

12 Q It wasn't because if you did the calculations, you
13 would have found that the vessel stayed afloat, was it?

14 A I've already tried to explain that.

15 Q Now in your scenarios, again, you didn't consider
16 the possibility of the crew pumping out the Number 4 and
17 the Number 2 starboard tanks, ballast tanks, did you?

18 A No.

19 Q Any particular reason why you didn't do that
20 calculation?

21 A I think that the rate at which the crew would have
22 had to act at the time and the rate at which water was
23 coming in the duct is just -- you wouldn't have time to do
24 any good.

25 Q How about just in a hypothetical that the crew

1 acted quickly and did what they had to do to pump it out,
2 did you run that kind of calculation?

3 A There are other scenarios that could be run.

4 Q Yes, but you didn't run them.

5 A No.

6 Q Now you talked about the splaying, which you said
7 could have been caused by the vessel coming over a ridge or
8 rock. You took the splaying of the various longitudinals
9 into consideration when you did the strength calculations?

10 A Yes.

11 Q And the vessel as found to be strong enough. That
12 wasn't the problem, strength wasn't the problem.

13 A It was strong enough after, in the scenarios that
14 we ran, in calm water, free floating. Again, it has its
15 buoyancy back. Things are uniformly distributed, yes, and
16 even with that degraded section, it still had adequate
17 strength.

18 Q And that includes that section around Section 23,
19 frame 23. She still had sufficient strength.

20 A For that case, calm water, ungrounded.

21 Q Well, that's what you had in that area, calm
22 water, right?

23 A Yes.

24 MR. CHALOS: No further questions.

25 FURTHER REDIRECT EXAMINATION

1 BY MR. COLE: (Resuming)

2 Q Is that what you would have when you lost say 12
3 feet of tide at the next low tide?

4 A Objection, Your Honor, to the form of the
5 question, "Is that what you would have . . .," with calm
6 water you mean?

7 Q Is that calm water scenario the same as having a
8 12-foot drop in tide and being set on a pinnacle?

9 A It's a different loading, but it has some
10 similarities in that as we explained yesterday, the effect
11 of waves is to change the support of the vessel. It
12 changes buoyancy distribution and that's what a hard
13 grounding is also doing. It's concentrating the support
14 locally.

15 Q In your scenario that you ran, at some point --
16 let's take a ten-minute one -- at some point before the
17 vessel capsizes, is it the angle of the vessel is -- when
18 does it become unmanageable, I mean where you can't walk on
19 it?

20 A Well, you've got the 20 degrees after 30 minutes,
21 after it's been removed from the ground. I think at that
22 point, the decks become almost impossible to work on.

23 MR. COLE: I have nothing further.

24 JUDGE JOHNSTONE: All right, you're excused.

25 We'll take a recess, ladies and gentlemen, for about ten or

1 15 minutes. Don't discuss the case among yourselves or
2 with any other person. Don't form or express any opinions.

3 THE CLERK: Please rise. This Court stands at
4 recess.

5 (Whereupon, the jury leaves the courtroom.)

6 (Whereupon, at 10:05 a.m., a recess is taken.)

7 (Whereupon, the jury enters the courtroom.)

8 THE CLERK: -- is in session.

9 JUDGE JOHNSTONE: Call your next witness, Mr.
10 Cole.

11 MS. HENRY: The State calls Mr. Stogsdill.
12 Whereupon,

13 JAMES A. STOGSDILL

14 having been called as a witness by Counsel for the State,
15 and having been duly sworn by the Clerk, was examined and
16 testified as follows:

17 THE CLERK: Sir, would you please state your full
18 name and spell your last name?

19 THE WITNESS: James Stogsdill, S-t-o-g-s-d-i-l-l.

20 THE CLERK: Your current business mailing address?

21 THE WITNESS: 325 Californski Beach Road,
22 Soldotna.

23 THE CLERK: Your current occupation?

24 THE WITNESS: Alaska state trooper.

25 DIRECT EXAMINATION

1 BY MS. HENRY:

2 Q Sir, how long have you been a member of the Alaska
3 state troopers?

4 A 18 years, about.

5 Q And during that period of time, were you ever
6 assigned to what's been called the CID unit?

7 A Criminal Investigation Bureau, yes.

8 Q How long were you assigned to that unit?

9 A From 1981 until 1984, I think.

10 Q What happened in 1984?

11 A It was generally disbanded. The investigators
12 were spread apart.

13 Q When it originally was a unit prior to 1984, where
14 were you assigned?

15 A Homicide.

16 Q And was that assignment in Anchorage?

17 A Yes.

18 Q But the homicide unit was to cover the entire
19 state, is that correct?

20 A Yes, it was.

21 Q All right, once the unit disbanded, the
22 investigators were sent to different areas of the state?

23 A Correct.

24 Q And where were you sent?

25 A Soldotna.

1 Q And that's where you've been ever since?

2 A Right.

3 Q Are you still an investigator for the state
4 troopers?

5 A Yes.

6 Q How did you get involved in the investigation of
7 the grounding of the Exxon Valdez?

8 A Actually, I think it was a month or so after the
9 grounding, I think I had spoken to you on the phone about
10 another matter and, at that time, you needed another
11 investigator to work on the case. I became involved at
12 that point.

13 Q Now do you know approximately when that would have
14 been that you started becoming involved in this case?

15 A Well, it would be the end of April, the 20th,
16 21st, somewhere in there.

17 Q Of last year.

18 A '89.

19 Q And you've been involved in the investigation ever
20 since, is that correct?

21 A Yes, Ma'am.

22 Q Now, sir, there's been some testimony by Professor
23 Vorus that he did not get certain information that he
24 needed until mid-January of this year and therefore could
25 not run all the tests that he was requested to do. Do you

1 know why that was?

2 MR. MADSON: Your Honor, I'll object. I don't see
3 the relevancy in why he did it in January, as opposed to
4 some earlier date. He did it and testified about it.

5 JUDGE JOHNSTONE: Objection overruled.

6 BY MS. HENRY: (Resuming)

7 Q Do you know why that is, sir?

8 A Basically, pending the outcome of some legal
9 issues, there were a number of documents and statements and
10 tapes and those kinds of things that were withheld from the
11 prosecution in this case, including myself. And I think
12 that those issues weren't resolved, then, until, well, some
13 time pre-January, but all those documents, as a matter of
14 course, were made available to us I think January 19th or
15 20th, somewhere in there. And from that point on, what was
16 made available was sent on to the experts who needed it and
17 that sort of thing.

18 Q Is that the same reason that Mr. Milwee also did
19 not receive the Buckhold reports until approximately six
20 weeks ago?

21 A Yes, nobody could get it until we had it to give
22 them.

23 Q All right, there's also been an exhibit that was
24 introduced in this case, an oil spill report, that Mr.
25 Chalos pointed out had a portion blocked out. What was the

1 reason for that?

2 MR. MADSON: Excuse me. Can I find out what we're
3 talking about here? Is it an exhibit or what?

4 MS HENRY: It's the oil spill report, Your Honor.

5 JUDGE JOHNSTONE: Do you have an exhibit number to
6 identify it?

7 MS HENRY: Your Honor, I believe it's Exhibit 105,
8 this oil record book.

9 JUDGE JOHNSTONE: What's the title, oil record
10 book?

11 MS HENRY: Oil record book.

12 JUDGE JOHNSTONE: All right, Exhibit 105. When
13 you find that, Mr. Cole, let Mr. Madson look at it.

14 (Tape changed to C-3655)

15 MS HENRY: I'm sorry, Mr. Cole, it's Exhibit 85.

16 JUDGE JOHNSTONE: Did you get that, Mr. Cole?

17 MR. COLE: (Inaudible.)

18 JUDGE JOHNSTONE: My records reflect that both 85
19 and 105 have been admitted.

20 MR. MADSON: That's correct, Your Honor. I guess
21 I'm just wondering why there are two of the same thing.

22 BY MS. HENRY: (Resuming)

23 Q Do you know the reason that portions of Exhibit 85
24 are blocked out in the oil record book?

25 A My assumption is, without knowing exactly what's

1 blocked out there, that it fell under the same rule as the
2 other documents and tapes and so forth that I mentioned
3 earlier, that that information, that particular portion of
4 that information was not made available to the state until
5 the outcome of the legal issues.

6 Q So in some cases, we didn't receive any documents
7 at all on a topic and in some cases, we received documents
8 with portions blocked out.

9 A That's correct.

10 Q When is the first time we received the interview
11 of Captain Hazelwood by Trooper Fox and Mark Delozier?

12 A I think that came with the bulk of the material in
13 mid-January, the 19th or 20th, I'm not sure, but somewhere
14 in there.

15 Q And when is the first time we received the entire
16 Coast Guard tape, the transmissions between the Exxon
17 Valdez and the Coast Guard the night of the grounding?

18 A I don't recall the exact date, but that didn't
19 occur until after this trial had begun.

20 Q So after the trial began?

21 A Yes.

22 Q When was the first time we knew what Greg Cousins
23 was going to say or had said in the past?

24 A The first indication we had of any of Greg
25 Cousins' statements came -- would have been mid-January,

1 then, with the NTSB transcripts and that was the first time
2 that we had gotten those.

3 Q Sir, were you in town last spring, 1989, the day
4 that Captain Hazelwood made his first court appearance?

5 A Yes.

6 Q Did you have an opportunity to talk to Captain
7 Hazelwood that day?

8 MR. MADSON: Your Honor, I'm going to object to
9 this and I think it might take a little more time than we
10 can do just at a bench conference. I apologize, but I
11 think it'll take some argument, maybe some voir dire.

12 JUDGE JOHNSTONE: All right, I'll accept that
13 representation. We'll do this outside the presence of the
14 jury. Don't speculate on what we're doing here. I don't
15 know what we're going to do, either. And don't form or
16 express any opinions and don't discuss this case in any
17 fashion. We'll call you back as soon as we can.

18 (The jury leaves the courtroom.)

19 MR. MADSON: Your Honor, Ms. Henry, yesterday or
20 the day before, told me, in a little memo, the essence of
21 what to expect this witness to testify about and I
22 appreciate that and that allows me to make my argument
23 perhaps a little more clear. She expects this witness to
24 answer that yes, he had a conversation with Captain
25 Hazelwood when he was providing security for him at his.

1 initial arraignment. He's an investigator, and yet he's
2 assigned as security, in case there was something that
3 would happen to Captain Hazelwood.

4 But, anyway, while he was at the airport, there
5 was a conversation when just he and Captain Hazelwood were
6 present; his attorneys were not. One of the attorneys told
7 the investigator not to discuss the events with -- any of
8 the events that occurred with Captain Hazelwood. We expect
9 that the testimony would show that Trooper Stogsdill did,
10 in fact, ask questions and fairly innocuous, it may seem,
11 as, "Who do you know in Valdez?" We expect that's what he
12 would testify to, that Captain Hazelwood indicated that he
13 had a friend in Valdez.

14 The first part of the objection goes to the fact
15 that this was a client who was represented by counsel. The
16 investigator had no business talking to him about events
17 that even remotely had anything to do with the grounding or
18 the events afterwards. And at the time, Trooper Stogsdill
19 probably did not think this was even important, but somehow
20 in the course of events, the prosecution does, which leads
21 me to my next objection, which is just plain relevance.

22 The fact that Captain Hazelwood may say, "I have a
23 friend in Valdez," and apparently we don't know who that
24 is, nor does this witness, what relevance does that have to
25 anything? I just don't see how that's going to aid this

1 jury in determining anything at all with regard to this
2 case and the issues involved here.

3 MS HENRY: Your Honor, I don't believe the
4 testimony will be that Sergeant Stogsdill was necessarily
5 alone with the Defendant. I don't believe he remembers
6 exactly if the attorneys were still there or not. The
7 conversation was simply small talk during breaks in
8 proceedings. And while they were waiting for the plane,
9 it's my understanding that Captain Hazelwood volunteered
10 this; it was not an interrogation or a questioning session
11 by Sergeant Stogsdill. Therefore, it's properly
12 admissable.

13 As to the relevancy objection, Your Honor, it
14 became relevant during the cross examination of Jamie
15 Delozier in an attempt to impeach her that, in fact, she
16 did not see Captain Hazelwood at the Pipeline Club,
17 drinking with someone else, since the only other person
18 they claim he was drinking with was Mr. Glowacki, who was
19 not in the Pipeline Club at the time. The relevancy of
20 this, Your Honor, is that in fact Captain Hazelwood does
21 have a friend in Valdez he would see when he was in town.
22 And the reasonable inference from that is that that is the
23 person that Jamie Delozier saw with Captain Hazelwood in
24 the Pipeline Club from 1:45 to 2:45, as opposed to Mr.
25 Glowacki.

1 Ms. Delozier did say that the person did not have
2 an accent. Mr. Glowacki clearly does have an accent. And
3 I think we should be permitted to put this evidence on and
4 argue the inference from it.

5 MR. MADSON: Well, Your Honor, what will happen if
6 this does come out is the conversation will be somewhat
7 along the lines Mr. Henry just indicated. However, I think
8 this witness will also acknowledge, and we expect him to,
9 that the conversation was not about a friend that he had in
10 Valdez, but that since the incident, all kinds of people
11 were claiming to be his friend and that a newspaper
12 article, in fact, came out that Captain Hazelwood was
13 mentioned by a guy by the name of Strickland in Valdez and
14 this article from Long Island indicated that he as
15 apparently interviewed and he was such a good friend of
16 Captain Hazelwood's, he was out at his house all the time,
17 visiting, et cetera, et cetera. So the conversation dealt
18 with a nonexistent friend or a friend only in the mind of
19 somebody in Valdez.

20 But even if that weren't the case, we have a
21 nonexistent person who may or may not have been in the
22 Pipeline Club at that time. There's been no effort made to
23 make this person's identity known. If there is an effort,
24 I don't know who it is. I think the witness would simply
25 say, "Yes, I tried to find out who it was and have no idea

1 if the friend really exists or when this friend with this
2 conversation occurred." Was it a friend five years ago?
3 Has he since moved? It's all sheer speculation and has
4 absolutely no relevance.

5 JUDGE JOHNSTONE: Why don't you go ahead and
6 inquire of the witness now and we'll get a record made of
7 what actually he will say?

8 MS HENRY: Okay, Your Honor.

9 BY MS. HENRY: (Resuming)

10 Q Sir, on the day that Captain Hazelwood arrived in
11 Anchorage to be initially arraigned on the charges, did you
12 have occasion to talk to him during that day?

13 A Yes, it was May 3d, I think. I was with Captain
14 Hazelwood generally the whole day.

15 Q That included picking him up at the airport, going
16 to the courthouse --

17 A Right.

18 Q -- during breaks in the court proceeding?

19 A I think the court proceeding was quick. The rest
20 of the time, I was somewhere in his company.

21 Q Did it also include transporting him to the jail
22 for the technical booking procedures?

23 A Yes, it did.

24 Q And how long did that take?

25 A A long time.

1 Q There was some hang-up on the posting.

2 A There was some hang-up on the bail posting or
3 something and it seemed like we were there a couple of
4 hours or so.

5 Q And did it also include time going to airport and
6 waiting for the plane to take off?

7 A Right.

8 Q During that time, do you remember specifically
9 what time of the day it was you had the conversation with
10 Captain Hazelwood?

11 A No, I don't. We talked the whole day about many
12 things and somewhere in that period of time, my memory is
13 that he mentioned having a friend and I think he even told
14 me his first name, but I don't remember that.

15 JUDGE JOHNSTONE: Trooper Stogsdill, you're
16 answering questions that haven't been asked, yet. The
17 question is what time of the day it was and I want to hear
18 a foundation here, who was present, where, if you can
19 recall, things of that nature, before we get into the
20 subject of the conversation.

21 THE WITNESS: Okay.

22 BY MS. HENRY: (Resuming)

23 Q Do you remember when it was that the specific
24 conversation about his friend occurred, I mean on the way
25 from the airport, on the way to the airport, during court

1 some time, during the booking procedure? Do you remember?

2 A No.

3 Q You remember it was some time that day?

4 A Yes.

5 Q Do you remember if anyone else was present or in
6 the area?

7 A I don't recall.

8 Q All right, do you remember whether or not his
9 attorneys were present during the booking procedures?

10 A Mr. Madson was there.

11 Q Do you remember if his attorneys were present
12 during the transportation to and from the airport and to
13 the hotel?

14 A There was -- yes, Mr. Madson I think was with us,
15 both, coming and going.

16 Q Were there some times when Mr. Madson was not with
17 you or close to you?

18 A There were times when I was alone with Captain
19 Hazelwood.

20 Q And this particular conversation that we're
21 talking about, you don't recall if someone was with you or
22 not?

23 A I don't.

24 Q Can you tell us how it happened, how the
25 conversation began?

A No.

1 Q Did you ask him any specific questions?

2 A No.

3 Q Do you remember anything --

4 A I'm sorry, you mean about whether or not he had
5 friends in Valdez, is that --

6 Q Yes.

7 A No, I don't. I asked him a lot of questions about
8 a lot of things, but I don't recall specifically asking him
9 if he had any friends in Valdez, although I might have. I
10 just don't recall how it came up.

11 Q Why would you ask that question?

12 A Well, I can't think of a reason why I would have.

13 Q Were you trying to have small talk with Captain
14 Hazelwood?

15 A That's all we were doing all day.

16 Q What did Captain Hazelwood say about the friend in
17 Valdez?

18 A My recollection is that he had a friend in Valdez
19 whom he oftentimes visited and occasionally had dinner with
20 when he was in town.

21 Q Did he give you any names?

22 A I see to recall him giving me the guy's first
23 name, but I don't remember what it is.

24 MS HENRY: Your Honor, that's all the questions I
25 have.

1 JUDGE JOHNSTONE: It was a guy, is that what
2 you're saying?

3 THE WITNESS: Yes.

4 JUDGE JOHNSTONE: Okay, let me make sure I
5 understand your testimony. You don't recall whether you
6 asked him or he volunteered the statement, is that correct?

7 THE WITNESS: No, sir, I don't recall.

8 JUDGE JOHNSTONE: And you can't tell us now how
9 the conversation began, what was said before it or what was
10 said after it?

11 THE WITNESS: No.

12 JUDGE JOHNSTONE: And you don't recall if there
13 was anybody else present, is that your testimony?

14 THE WITNESS: No, there could have been. I mean
15 we talked all day when people were there and when they
16 weren't and I just don't recall what period of day that
17 little piece of information came out.

18 JUDGE JOHNSTONE: Besides the attorneys involved,
19 who else was present with you in the presence of Captain
20 Hazelwood?

21 THE WITNESS: Well, Sergeant Stewart from the
22 troopers was with me all day.

23 JUDGE JOHNSTONE: All right, any further argument
24 at this time?

25 MR. MADSON: No, Your Honor, I don't believe so.

1 MS HENRY: No, Your Honor, not unless the Court
2 has some questions.

3 JUDGE JOHNSTONE: I have no questions. Objection
4 sustained. I don't think there's a proper foundation for
5 it. I think that its probative value is very marginal, if
6 any at all, and it's outweighed by I think confusing issues
7 to the jury and the inferences that could be raised from
8 that I think are probably unfair inferences. And, finally,
9 this witness doesn't recall whether or not he asked the
10 question or not and Captain Hazelwood is represented by
11 Counsel. And I think any interrogation of anything by this
12 witness of Captain Hazelwood is not small talk. Whenever
13 it can result in any kind of inculpatory statement, it's
14 improper to interrogate the Defendant. So it'll be
15 prevented from two points of view, relevance and the
16 Defendant was represented by counsel and it's improper to
17 interrogate him. Now I'm going to draw the inference that
18 since the witness doesn't recall that the witness did ask
19 the question. The burden is on the state to show that it
20 was voluntary. The state hasn't sustained that burden.

21 Are we ready for the jury now?

22 MR. MADSON: Yes, Your Honor.

23 JUDGE JOHNSTONE: Okay.

24 (Whereupon, the jury enters the courtroom.)

25 JUDGE JOHNSTONE: Thank you, ladies and gentlemen.

1 You may proceed.

2 MS HENRY: Thank you.

3 BY MS. HENRY: (Resuming)

4 Q Sergeant Stogsdill, from the time of the
5 Defendant's first court appearance, over the next several
6 months and up to and perhaps even including the trial, did
7 you have several occasions to talk to Captain Hazelwood?

8 A Sure.

9 Q Would you say it was quite often or --

10 A Well, it was -- occasional.

11 Q And it was mostly just small talk?

12 A Yes.

13 Q Did you also have an opportunity to listen to
14 tapes of Captain Hazelwood's voice?

15 A Yes, I did.

16 Q And these tapes were specifically identified as
17 Captain Hazelwood.

18 A Yes, I did.

19 Q What kind of tapes were they?

20 A I listened to the interview of Captain Hazelwood
21 by Mark Delozier and Trooper Fox. I've listened to
22 conversations with Captain Hazelwood in the Vessel Traffic
23 Center, one where he identifies himself. In fact, I guess
24 I've listened to several Vessel Traffic Center tapes that
25 Captain Hazelwood's voice appears on.

1 Q All right. And based upon your personal
2 conversations with Captain Hazelwood and your listening to
3 some of these tapes, do you think that you could recognize
4 Captain Hazelwood's voice?

5 A I think so.

6 Q Sir, I'm showing you what's been marked as
7 Plaintiff's Number 117 for identification. Would you
8 please identify that?

9 A It's a tape that contains the inbound report from
10 the Exxon Valdez to the Vessel Traffic Center.

11 Q That would have been on March 22d?

12 A Yes.

13 Q Sir, I'm showing you what's been marked as
14 Plaintiff's Exhibit Number 120 for identification. Can you
15 identify that?

16 A This looks like a tape that the Coast Guard made
17 at our request, which contains a conversation between the
18 Exxon Valdez and the Vessel Traffic Center.

19 Q And do you know the date of that conversation?

20 A This would have been the 24th of March.

21 Q Does that tape also reflect specific times in the
22 conversation?

23 A I think so, yes.

24 Q I'm showing you what's been marked as Plaintiff's
25 Exhibit Number 121 for identification. Can you please

1 identify that?

2 A This is another tape the Coast Guard provided at
3 our request which also contains a conversation between the
4 Exxon Valdez and the Vessel Traffic Center.

5 Q You are aware that a subpoena was issued during
6 the trial to Mr. Beyers to fly to Valdez and actually make
7 those copies.

8 A I'm aware of that, yes.

9 Q All right, have you listened to all three of those
10 tapes?

11 A Yes, I have.

12 Q Do you recognize anyone's voice on those tapes?

13 A Captain Hazelwood's voice appears on all three of
14 these tapes.

15 Q All right, thank you, sir.

16 MS HENRY: At this time, the state would move
17 admission of 117, 120 and 121.

18 MR. MADSON: Your Honor, I guess, well, I'm
19 objecting if there's anything on these tapes to be -- in
20 other words, the offer, there's some offer of proof of
21 there's some relevance other than the fact that his voice
22 appears on the tapes. If that's the case, I don't have any
23 objection. If it's to be used for any other purpose, then
24 I do.

25 JUDGE JOHNSTONE: Why don't you come on up.

1 (The following was said at the bench.)

2 JUDGE JOHNSTONE: Are these already in evidence at
3 all?

4 MS HENRY: Pardon me?

5 JUDGE JOHNSTONE: None of these are in evidence at
6 this time.

7 MS HENRY: Yes, I never moved for them until
8 today.

9 JUDGE JOHNSTONE: Okay, but we've heard them.

10 MS HENRY: Yes, Mr. Beyers and (inaudible).

11 JUDGE JOHNSTONE: (Inaudible) I'm just assuming
12 that you'd offer additional differences between the tone of
13 the voice, is that correct?

14 MS HENRY: That's correct, Your Honor. 117 is
15 (inaudible) on the 22d. These are nine hours -- one of
16 them is nine hours after the grounding and we've already
17 played the tape at the time of the grounding, so the
18 purpose would be the difference in the voices.

19 MR. MADSON: Your Honor, we have reason to
20 believe, good reason to believe that the inbound tape was
21 run at the wrong speed. This is the one where it's a copy,
22 made from the copy.

23 JUDGE JOHNSTONE: We've already discussed that.
24 Okay, any other objection other than that?

25 MR. MADSON: (Inaudible.)

1 JUDGE JOHNSTONE: Okay, I'm going to admit them at
2 this time. Before they go to the jury, you can come up
3 with a legitimate dispute. So far, you've made assertions,
4 but there's no evidence that there's anything wrong with
5 it. So at this time, they'll be admitted provisionally.
6 The inbound tape will be -- the other two will be admitted
7 without provision. The inbound tape that you claim there's
8 some sort of problem with will be admitted provisionally
9 and that would be 117. 120 and 121 will be admitted
10 without reservation at this time.

11 (The following was said in open court.)

12 JUDGE JOHNSTONE: And Mr. Madson, that will be
13 your burden to call that to the Court's attention at such
14 time as you deem proper. They're admitted.

15 (State Exhibits 117, 120 and
16 121 were received in
17 evidence.)

18 BY MS. HENRY: (Resuming)

19 Q Sir, what is Captain Hazelwood's height?

20 A Height?

21 Q Yes.

22 A I think it's recorded as six feet.

23 Q And what is his weight?

24 A 170.

25 Q Finally, Counsel for the Defendants have, on

1 occasion, in this trial claimed that they have not seen
2 certain documents. Are you aware of the procedures in our
3 office to provide copies of all documents to Defense
4 Counsel, even those that we never got, that we never saw?

5 A Well, I think your policy has been we give
6 everything.

7 Q And to your knowledge, has that occurred in this
8 case?

9 A As far as I know.

10 Q Thank you, sir.

11 CROSS EXAMINATION

12 BY MR. MADSON:

13 Q Well, Sergeant, you've been working on this case
14 since April, right?

15 A Yes.

16 Q Now first of all, Ms. Henry asked you a number of
17 questions about documents that you did not see or did not
18 get until January some time, right?

19 A That's correct.

20 Q You said there were some court proceedings which
21 prevented you from getting those documents.

22 A Well, I think what I said was that there was a
23 legal issue which we were pending the outcome and then
24 there was a procedure set up which prevented us from
25 getting those documents until that court decision took

1 place.

2 Q When you say "we," you're talking about yourself,
3 Ms. Henry and Mr. Cole.

4 A And Mr. Adams.

5 Q And Mr. Adams. You know, however, that the
6 District Attorney's Office had this material all along.

7 A Yes, one person in the District Attorney's Office
8 had it all.

9 Q Right.

10 A He could have given it to you any time you wanted
11 him to if he chose to do that, but for his reasons and his
12 particular concerns in the case, he did not, is that right?

13 Q Well, he was involved in the initial setup of the
14 procedure. I think he was going to stick to that.

15 A Yes, he made a decision as to what he wanted to do
16 and how he should go about it, right?

17 A Correct.

18 Q But he could have made a different decision and if
19 he had made a different decision, you would have gotten the
20 material a lot sooner.

21 A I suppose he could have made any decision he
22 wanted, but he stuck to the original --

23 Q What I'm getting at, sir, is that the defense in
24 this case certainly didn't keep anybody from getting any
25 documents, did they?

1 A Oh, no, he wasn't directly responsible for that.
2 It was just we were waiting for the outcome of a legal
3 issue.

4 Q Now you said you listened to the tapes, including
5 one that I believe is Number 117, Exhibit 117, the inbound
6 tape.

7 A The inbound tape.

8 Q How much of that tape did you indicate on there
9 was Captain Hazelwood's voice, compared to anybody else?

10 A Well, there's other persons on the tape. There's
11 the Vessel Traffic Center. I think Mr. Shepherd is there.
12 There's another officer on the Exxon Valdez, just speaking,
13 and Captain Hazelwood.

14 Q What do you recall Captain Hazelwood saying,
15 anything in particular?

16 A Basically, yes, he -- the Vessel Traffic Center
17 had gotten the initial report from the Exxon Valdez, told
18 them to stand by and then relayed some berthing information
19 to the Exxon Valdez to which Captain Hazelwood acknowledged
20 that and indicated that they would make those arrangements
21 when they got closer up or something.

22 Q Roughly how long a conversation would you say this
23 was?

24 A Seconds, 20 seconds, 15 seconds.

25 Q Ten to 20 seconds, that would be a fair estimate?

1 A Somewhere in there.

2 Q Lastly, you said he was six feet and 170 pounds.

3 Did you weigh Captain Hazelwood or how do you know this?

4 A I think that was the information that he provided
5 to the jailer after the arraignment booking.

6 Q That was basic booking information --

7 A Yes.

8 Q -- is that what it was?

9 A Yes.

10 Q So you just made a note of that in your notebook.

11 A Actually, it just came right off of their
12 document.

13 Q What about his age?

14 A I think he was born in '46. I don't recall the
15 day. September something, '46, I think.

16 Q Which would make him 43 or 44.

17 A Right.

18 Q Certainly not in his 50s.

19 A In his 50s?

20 Q 50s.

21 A No.

22 Q I don't have any other questions, thank you.

23 MS HENRY: No questions.

24 JUDGE JOHNSTONE: You may step down.

25 MR. COLE: The State will call Mr. Richard

1 Prouty.

2 Whereupon,

3 RICHARD W. PROUTY

4 having been called as a witness by Counsel for the State,
5 and having been duly sworn by the Clerk, was examined and
6 testified as follows:

7 THE CLERK: Sir, would you please state your full
8 name and then spell your last name?

9 THE WITNESS: Richard W. Prouty, that's
10 P-r-o-u-t-y.

11 THE CLERK: And your current mailing address?

12 THE WITNESS: 5600 East Waterloo Road, in Edmond,
13 Oklahoma.

14 THE CLERK: And your current occupation?

15 THE WITNESS: I'm currently employed as the chief
16 who runs the toxicologist with the Office of the Chief
17 Medical Examiner for the State of Oklahoma.

18 THE CLERK: Thank you.

19 JUDGE JOHNSTONE: Mr. Cole.

20 MR. COLE: Thank you, Your Honor.

21 DIRECT EXAMINATION

22 BY MR. COLE:

23 Q Mr. Prouty, why have you been asked to testify in
24 this matter?

25 A I was asked by the District Attorney's Office if I

1 would review certain information and documents associated
2 with the grounding of the Exxon Valdez to evaluate the role
3 of alcohol, if any, that may have been associated or
4 contributed to that grounding.

5 Q Would you please define what toxicology means?

6 A Surely. Toxicology, most simply described, is the
7 study of poisons. More specifically, it's the study of the
8 adverse or the undesirable effects of drugs and other
9 chemical agents upon the human body. These studies
10 encompass a knowledge of the effects of drugs and other
11 chemical substances on the human body, as well as the
12 methods that are used in the laboratory for the isolation
13 and identification and measurement of the presence of these
14 drugs and interpretation of the significance of the
15 analytical findings.

16 Q What is a forensic toxicologist?

17 A Well, forensic simply means to debate, but more
18 specifically those of us that are employed in this
19 profession are doing toxicology in which the findings are
20 used in a court of law or in some other arbitration or
21 legal proceedings.

22 Q What are your duties, presently, as the chief
23 forensic toxicologist?

24 A As the chief toxicologist with the Medical
25 Examiner's Office, my responsibilities include the

1 direction of the laboratory investigation of deaths that
2 occur throughout the State of Oklahoma. The medical
3 examiner's office in Oklahoma is a state agency and we are
4 statutorily required, by law, to investigate certain
5 classes of deaths or certain types of deaths that occur
6 within the state. This includes all accidental deaths, all
7 homicides, all suicides, all deaths that occur in
8 institutions of incarceration, in jail or prison. And as
9 part of these investigations, most frequently, laboratory
10 studies are done in which specimens are collected at
11 autopsy from the body and these specimens are sent to my
12 laboratory for toxicological evaluation.

13 Q I'd like to talk a little bit about your
14 educational background. When did you attend college?

15 A My undergraduate training was from 1949 through
16 1953.

17 Q What did you major in at that time?

18 A In chemistry.

19 Q And where was that at?

20 A That was at Auburn University, in Auburn, Alabama.

21 Q And after that, did you attend any graduate
22 schools?

23 A Yes, I did.

24 Q Where did you attend graduate school?

25 A I took two courses in pharmacology and physiology

1 at Auburn University, but I also later, subsequently,
2 attended graduate school at the University of Maryland in
3 Baltimore at the professional schools.

4 Q And why did you attend that school?

5 A At the University of Maryland?

6 Q Yes.

7 A I was enrolled in a Ph.D. program in toxicology
8 that was offered at that university.

9 Q Did you receive your degree there?

10 A No, I did not.

11 Q Would you explain why?

12 A Yes, during -- I was there from 1958 through 1961,
13 during which time I completed all the didactic requirements
14 for my Ph.D., excluding -- that is all the formal course
15 work, excluding completion of my research and thesis. In
16 late August, early September of 1961, I was offered an
17 opportunity of employment in North Dakota, with the North
18 Dakota State University, and with that, I was also given
19 the opportunity to complete my research and thesis, and I
20 accepted that position. However, I never did find time to
21 complete my analytical work and write the dissertation.

22 Q Well, let's talk for a minute about your training
23 experience in the field of forensic toxicology. When did
24 that begin?

25 A Actually, it began around November of 1951. I was

1 employed on a part-time basis as an analyst in the
2 laboratories of the State of Alabama, Department of
3 Toxicology and Criminal Investigation, the home office
4 being located there on the campus of Auburn University. I
5 was there in that capacity on a halftime basis while
6 completing my undergraduate studies from November of '51 to
7 June of 1953.

8 Q What were you doing?

9 A I was doing routine analysis for some of the more
10 common drugs, including alcohol, in the investigation of
11 deaths.

12 Q And after working in that, where did you go to
13 work, where were you employed after that?

14 A In the early summer of that year of '53, I
15 accepted full-time employment with the State of Alabama,
16 Department of Toxicology and Criminal Investigation, as an
17 associate toxicologist. And in July of that same year, I
18 was appointed as director of a regional laboratory of that
19 agency which was at Montgomery, Alabama. I opened that
20 laboratory. And during -- I was there from approximately
21 July, August of 1953 through October 1954, during which
22 time I was responsible for the laboratory investigation of
23 deaths that occurred within a 14-county division of that
24 agency.

25 Q After that, did you end up going into the

1 military?

2 A Yes, I did.

3 Q And what did you do when you were in the military?

4 A I went on active duty as a commissioned officer in
5 the medical service for the United States Army in October
6 of '54. And after a brief officers' orientation course at
7 Fort Sam Houston, Texas, I was assigned as director of the
8 toxicology laboratories of the 406th medical general
9 laboratory in Tokyo, Japan. This was in December of 1954
10 and I remained in that capacity through July of 1958.

11 My duties there were to direct the laboratory
12 investigation of deaths that occurred among military
13 personnel and their dependents throughout the Far East
14 Command, which included at that time Japan, Korea, Okinawa
15 and some of the outlying islands.

16 Q And did your responsibilities require testing of
17 samples?

18 A Yes, it did.

19 Q It would have been also for alcohol and other
20 drugs?

21 A Alcohol and other drugs.

22 Q After -- what rank did you achieve then in the
23 military?

24 A On active duty, I achieved the rank of first
25 lieutenant. After I returned from Japan, I was honorably

1 discharged from the active service, but I remained in the
2 active reserves in the United States Army for some 26, 28
3 years and I achieved the final rank of full colonel in the
4 retired reserves of the Army.

5 Q After leaving the military in 1958, what did you
6 do then?

7 A That's when, in October of 1985, when I enrolled
8 in the graduate training program in toxicology at the
9 University of Maryland in Baltimore and I was there for
10 some three years as a full-time student and research
11 associate.

12 Q What were your responsibilities as a full-time
13 student and research assistant?

14 A Well, my responsibility as a full-time student was
15 achieving a graduate education in forensic toxicology,
16 taking basically the basic sciences courses within the
17 medical school, supported with additional graduate studies
18 in chemistry and pharmacology in the college of pharmacy.
19 Some of those courses were there, some of them were in the
20 College of Dentistry and some were on the campus, the main
21 campus of the University of Maryland at College Park.

22 My duties as a research associate, primarily, was
23 that of conducting a research project which was going to be
24 used for my Ph.D. dissertation, but I also had occasion to
25 participate as a research associate with the Department of

1 Pharmacology at the medical school two summers.

2 Q I think you testified that in 1961, you went to
3 North Dakota. What position did you accept in North
4 Dakota?

5 A It was a joint position. I was hired primarily as
6 the state toxicologist for the State of North Dakota. This
7 appointment carried with it a joint appointment as an
8 associate professor of toxicology within the College of
9 Pharmacy at North Dakota State University in Fargo.

10 Q What were your responsibilities in that position?

11 A My responsibilities as the state toxicologist was
12 to establish a laboratory system within the State of North
13 Dakota to provide toxicological investigation of deaths and
14 other accidents and injuries that occurred throughout the
15 state, to establish this laboratory equipment and provide
16 the service for both law enforcement and for the medical
17 treatment facilities, the hospitals, throughout the state.

18 A large part of my activity in North Dakota was
19 associated with alcohol in that I was also charged by state
20 law to establish approved methods for determining blood
21 alcohol content as used in law enforcement of the state
22 statutes of driving under the influence of alcohol.

23 I was also responsible for approving various
24 testing devices, instruments, that were used in the state
25 by law enforcement for that purpose and I was also charged

1 with the responsibility of training and certification of
2 individuals that were performing chemical tests for
3 intoxication in the state, including law enforcement
4 officers.

5 Q Now would those last three responsibilities you
6 just mentioned, would they have fallen under your duties as
7 a state toxicologist or as a director of the North Dakota
8 alcohol and traffic safety program?

9 A Well, primarily as the state toxicologist because
10 by state law of North Dakota, the state toxicologist is
11 charged with those responsibilities and is also required to
12 train and certify testing methods and individuals within
13 the state.

14 Q After -- at some point, did you leave North Dakota
15 then?

16 A Yes, sir, I did.

17 Q And where did you go from there?

18 A To Oklahoma.

19 Q And that's where you have your present position as
20 chief forensic toxicologist?

21 A Yes, sir, that was in September of 1972.

22 Q And how many people do you have working underneath
23 you in your present position?

24 A I have five forensic chemists, a laboratory aid,
25 an evidence technician, an associate toxicologist who is a

1 Ph.D., that's my first assistant, and a secretary.

2 Q Now during the last 40 years that you've been
3 involved in toxicology, have you received any academic
4 appointments during that time?

5 A Yes, sir, I have.

6 Q Would you tell the jury what those -- let's begin
7 -- what have those been?

8 A Well, my first academic appointments were as an
9 associate professor of toxicology at North Dakota State
10 University. That was in October of 1961. In 1965, I was
11 promoted to the rank of full professor at that same
12 university and held that tenured position at the time I
13 went to Oklahoma. I currently hold an adjunct
14 professorship at the University of Oklahoma Health Sciences
15 Center in Oklahoma City within the College of Pharmacy as
16 an adjunct professor of toxicology. I also hold an
17 appointment as an adjunct professor in the forensic science
18 program at Central State University, which is in Edmond,
19 Oklahoma, just outside of Oklahoma City.

20 Q And as an associate professor and a professor of
21 toxicology back in North Dakota State, what type of courses
22 were you teaching?

23 A I was charged primarily with the teaching of a
24 required course in general toxicology for all pharmacy
25 students in their undergraduate program. The pharmacy

1 program at NDSU, as at most universities today, is a
2 five-year program and that was taught either in the fourth
3 or fifth year. I also was director of the graduate
4 training program within the College of Pharmacy that was
5 funded by the United States Public Health Service, a
6 graduate program that supported students in pursuit of a
7 master's degree in toxicology, the program being under my
8 direction. That was for approximately six years, six or
9 seven years.

10 Q I'd like to talk about some of your other
11 professional activities in the area of forensic
12 toxicology. You mentioned briefly the position of being
13 the director of the North Dakota alcohol and traffic safety
14 program. When was that?

15 A Well, with the inception of my position there,
16 '61.

17 Q And what were your responsibilities as director of
18 that program?

19 A Well, in addition to being responsible for the
20 selection and approval of testing methods, my laboratory --
21 that is the state toxicology laboratory in Fargo, under my
22 direction, reformed all of the blood alcohol analysis
23 associated with driving while intoxicated violations within
24 the state. I say all of them. I'd say 99.5 percent of
25 them were done in my laboratory. There was one other

1 laboratory, a private laboratory, in the state that was
2 approved by my position to conduct similar analysis.

3 Q And have you been asked to be a consultant
4 toxicologist at certain periods, stages of your career?

5 A Yes, sir, I have.

6 Q Would you explain what those would be, when those
7 were?

8 A During my tenure at North Dakota State University,
9 or my time in Fargo, I was consulted to the Veterans
10 Administration Hospital on matters of toxicology, which was
11 located there, in Fargo. I was also a consultant to the
12 Poison Information and Control Center for the State of
13 North Dakota at that time. In times past -- well, during
14 my tenure in North Dakota, for several years, I served as a
15 toxicology consultant with the National Highway Traffic
16 Safety Administration in Washington, D.C., which is a
17 division or subunit of the Department of Transportation. I
18 also was a consultant with the National Bureau of Standards
19 in Washington on matters of alcohol and alcohol testing.

20 I currently am a consultant with the National
21 Institutes of Drug Abuse of the United States government in
22 two capacities, one as I am a certified laboratory
23 inspector that is involved in the inspection and evaluation
24 of toxicology laboratories throughout the country that are
25 applying for certification for doing drug testing in urine

1 with the federal program of Drugs in the Work Place.

2 Q Now we had some testimony earlier that Dr. Peat's
3 laboratory was one of these. Are you the person that
4 actually certifies these type of labs?

5 A It should be clearly understood that the inspector
6 doesn't do the certification. The inspection process is a
7 very important part of the certification program. The
8 program consists of the laboratory must first establish its
9 proficiency, analytical proficiency, by satisfactorily
10 performing analyses on a battery of specimens that are sent
11 to them. After they have successfully completed the
12 analytical phase, then the laboratory -- there's a site
13 visit made of the laboratory by three inspectors. The
14 inspection team consists of three toxicologists that have
15 been certified through the NIDA program. And a detailed
16 inspection is made of the laboratory, not only of their
17 analytical results, but their records, their protocols,
18 their methods of analysis, their personnel files, their
19 data files. And then the inspector makes a report to the
20 certifying agency, in this case the National Institutes of
21 Drug Abuse, concerning the result of his inspection.

22 The certification is done by the federal
23 government, not by the individual inspector.

24 Q Now are you also a member of the National
25 Guidelines Committee on Forensic Toxicology?

1 A Yes, sir, I am.

2 Q What are the responsibilities that you have there?

3 A This is an ad hoc committee of ten toxicologists
4 throughout the United States that have been mandated a task
5 to recommend operational guidelines for forensic toxicology
6 laboratories throughout the United States in two areas,
7 those laboratories that are performing post-mortem forensic
8 toxicology, that is in death investigations, such as my
9 laboratory, and then another group of laboratories that we
10 call human performance laboratories. And more
11 specifically, these are the police laboratories or crime
12 laboratories throughout the United States that are doing
13 analytical testing for alcohol and other drugs.

14 We are not involved -- these guidelines do not
15 encompass recommendations for urine testing. This has
16 already been very well addressed and in great depth through
17 federal guidelines that are actually mandated requirements
18 today.

19 But these guidelines encompass our recommendations
20 of the staffing of such laboratories, that is the training
21 and experience of laboratory directors and/or the _____
22 people, the security that should be kept on such
23 laboratories, all of them being forensic in nature. The
24 results ultimately will be used in various arbitrations or
25 in proceedings. The analytical methods that are used as

1 to quality control and quality assurance and the degree of
2 proof that is exercised within the laboratory in reaching
3 their conclusions and methods of reporting, how are these
4 reports generated and utilized, as well as interpretation.
5 These are recommended guidelines that have just been
6 completed, incidentally, by this committee.

7 I might add that the genesis of this activity was
8 -- the committee was formed at the direction of the
9 Toxicology Section of the American Academy of Forensic
10 Sciences and another national organization, the Society of
11 Forensic Toxicologists.

12 Q And you're a member of both of those
13 organizations?

14 A Yes, I am.

15 Q Are you a member of any other professional
16 organizations?

17 A Yes, I am.

18 Q Would you tell the jury what those are?

19 A I'm a member of the National Safety Council
20 Committee on Alcohol and Other Drugs. I'm a member of the
21 Canadian Society of Forensic Sciences. I'm a member of the
22 International Association of Forensic Toxicologists. I'm a
23 member of the Southwestern Association of Toxicologists.
24 I'm also a member of the American Crime Laboratories
25 Directors, Association of Crime Laboratories Directors, a

1 national organization. And as previously mentioned, of the
2 Toxicology Section of the American Academy of Forensic
3 Sciences and of the Society of Forensic Toxicologists.

4 Q Have you held any chairs, offices of distinction
5 in any of those?

6 A Yes, sir, I have.

7 Q Would you explain that?

8 A With the American Academy of Forensic Sciences, I
9 have served as secretary and as chairman of the Toxicology
10 Section in years past, it was some time ago. I think I was
11 chairman in 1971, '72. I'm a fellow of the Academy in the
12 Toxicology Section. I have served in numerous chairs with
13 the Society of Forensic Toxicologists, first, as a member
14 of the board of directors for a number of years, then
15 vice-president, and I also served as president of that
16 organization.

17 With the Southwestern Association of
18 Toxicologists, I was a charter member and the first
19 president of that association and I've been on the board of
20 directors several times since then.

21 The National Safety Council Committee on Alcohol
22 and Other Drugs, I've been a member of that group for more
23 than 25 years, approximately 27 years I think. I have been
24 on the executive board of that committee for some 20-plus
25 years. I have also served as vice-chairman and chairman of

1 that committee. I'm currently still on the executive
2 committee of the NFC Committee on Alcohol and Drugs.

3 Q What are the activities and the functions of the
4 NFC?

5 A The National Safety Council Committee on Alcohol
6 and Drugs is a group of people from around the United
7 States and Canada that are -- direct their activities
8 towards making recommendations of the state of the art, if
9 you please, as far as legislation concerning alcohol and
10 traffic safety or alcohol in the workplace, upon testing
11 methods that are to be used, although these are general
12 guidelines. The Committee is not in a position to endorse
13 any specific commercial product, but on programs,
14 recommending programs to be used at the municipal, county
15 and state and federal level, in addressing the problems of
16 alcohol and safety.

17 The Committee is composed of certainly not just
18 toxicologists. There are also lawyers, behavioral
19 scientists, law enforcement people, people in alcohol
20 rehabilitation at the national level. It's a rather
21 homogeneous group.

22 Q Now what does national board certification mean?

23 A Well, it means you've been certified by a national
24 board, not to be facetious. But within my field, we do
25 have the American Board of Forensic Toxicology and this

1 board is -- sole duty is to recognize -- well, to do peer
2 review of those people that are involved within the
3 profession, to set requirements as to training and
4 experience within the field that must be met for board
5 certification and to periodically monitor the continued
6 professional, as well as ethical performance of those
7 within the field.

8 Q Have you been asked to testify in the past in
9 civil and criminal trials?

10 A Yes, sir, I have.

11 Q Would you give the jury an idea of how many times
12 you've been asked to testify in the past?

13 A It would be a very rough estimate; I don't keep
14 track. But somewhere near a thousand times, possibly, 800,
15 a thousand.

16 Q Have you been qualified as an expert in the field
17 of forensic toxicology in those trials?

18 A Yes, I have.

19 Q In how many states around the country have you
20 been qualified as an expert in this field?

21 A I don't know that I can tell you all of them, but
22 those that come to mind, in South Dakota, in North Dakota,
23 Minnesota, New Jersey, in Alabama, Texas, certainly
24 Oklahoma, in Kansas, Colorado, California. I recall those;
25 there may be others.

1 Q Have you had to testify in federal cases at all?

2 A Yes, I have.

3 Q Have you been qualified as an expert in federal
4 courts?

5 A Yes, I have.

6 Q Can you give the jury an idea of how many of
7 those?

8 A Federal court activity is less than that within
9 state courts, both civil and criminal, but I would say
10 several dozen times or 50 times possibly, I don't know.

11 Q Have you ever not been qualified to testify as an
12 expert in the field of forensic toxicology?

13 A No, I haven't.

14 Q Now when you're called to testify as an expert,
15 are you always called by the state or the government as
16 their expert?

17 A No, no, that's --

18 Q Would you give the jury an idea of how often
19 during your career you have been called to testify on
20 behalf of the defense?

21 A Well, again, it would be an estimate. I would say
22 at least within the last 20 years to 25 years, possibly an
23 equal amount for prosecution or defense and I'm
24 encompassing both civil and criminal cases.

25 Q Now have you written publications in the field of

1 forensic toxicology?

2 A Yes, I have.

3 Q And have those been published in -- have you
4 published them?

5 A Yes.

6 Q Would you give the jury an idea of the types of
7 articles that you've written in the past as related to
8 forensic toxicology?

9 A I have published in the earlier analytical methods
10 for identification of drugs and breakdown products of drugs
11 in the scientific literature. I've published studies
12 associated with the evaluation of certain types of devices
13 or instruments for blood testing as correlated to blood
14 testing. I have published on the significance of blood
15 concentrations of alcohol and other drugs in post mortem
16 tissues. I contributed a chapter in a book that was
17 published just last year on that particular subject. I
18 have also published on the significance of post mortem
19 blood alcohol results in cadavers, in dead people, bloods
20 collected from different compartments of the body. I have
21 just recently published a very intense piece of work on the
22 post mortem redistribution of drugs other than alcohol in
23 human tissues. That's appearing this month in the Journal
24 of Forensic Sciences.

25 Q How do you upkeep your knowledge in the field of

1 forensic toxicology?

2 A I do this by reading, of course, the scientific
3 literature that is applicable to my field. I do this by
4 attending workshops and seminars that are conducted
5 throughout the United States in the area of toxicology, as
6 well as attending both regional and national scientific
7 meetings addressing my particular area.

8 Q Have you attended any symposiums say in the last
9 month or workshops?

10 A Yes.

11 Q Would you explain what that was?

12 A Well, I was in Cincinnati a couple of weeks ago, I
13 went the 17th of February, in anticipation of participating
14 at several levels. Number one was in -- on the 21st of
15 February was the annual meetings of the American Academy of
16 Forensic Sciences that I had intended to participate and
17 attend in. But prior to those meetings, I was -- it was
18 necessary that I be there to fulfill several other
19 obligations. One was a meeting of the guidelines
20 committee, the National Guidelines Committee. We met on
21 Saturday and Sunday, the 17th and 18th of February, for our
22 final wrap-up of the guidelines. Also, on Monday and
23 Tuesday of that same month -- this would have been the 20th
24 and 21st, I think, of February, I had to attend the board
25 of directors meeting of the Society of Forensic

1 Toxicologists to make a committee report. I also attended
2 the executive committee meetings of the National Safety
3 Council Committee on Alcohol and Drugs that was held on
4 Monday, the 20th or 19th. I also attended the full
5 membership meeting of the National Safety Council Committee
6 on Alcohol and Drugs the following morning. I also had to
7 attend the American Board of Forensic Toxicology directors'
8 meeting. I'm also a director of that board, was elected in
9 that position last year.

10 So those meetings I attended and then it was
11 necessary for me to leave Cincinnati and come to
12 Anchorage. On Wednesday, the 21st, I came out here.

13 Q Now have you, yourself, done studies of the
14 effects of alcohol on the human body?

15 A Yes, I have.

16 Q Would you explain that study that you did?

17 A The -- rather than address it as a simple study, I
18 rather look at it as an experience in that as part of the
19 training activity that I was mandated to do within North
20 Dakota -- that is training of the law enforcement people
21 that were to perform breath tests within the state -- part
22 of this training program was to -- we had what we called
23 controlled drinking experiments. That is to say that
24 adult, male and female, subjects were given predetermined
25 amounts of alcoholic beverages in the common forms that we

1 all know them, as beer, wine, bourbon or gin, whatever
2 choice, but were given measured amounts of these beverages
3 over measured periods of time after having recorded their
4 body weights and after having noted and recorded what these
5 people had to eat. These drinks were dispensed in a social
6 setting. At the same time, it was a controlled experiment
7 in that we knew exactly what each individual consumed, when
8 they received the drink, what the mix was, when the drink
9 was finished, when the next drink was administered,
10 et cetera.

11 The drinking phase of the studies normally took
12 place between an hour and a half to sometimes as long as
13 three hours, that is the drinking experiment. After --
14 well, even during the drinking experiment, these people
15 were observed by myself and other monitors of the training,
16 as well as after the drinking was finished, they were
17 subjected to various tests as to monitor or evaluate the
18 effects, of any, of what they had to drink. And then,
19 subsequently, they were subjected to a battery of
20 analytical testing to measure their blood alcohol content,
21 blood, as well as urine. A urine specimen was collected.
22 And indirect testing was also done by breath testing.

23 And the end result of such experiments was to
24 evaluate the data obtained, that is what a person of a
25 given size had to drink, over what drinking course, what

1 effects the alcohol had, as correlated to their blood
2 alcohol content.

3 Q Now would you give the jury an idea of what type
4 of test you administered besides the ones that were
5 designed to determine the level of blood alcohol levels?
6 Did you ask to perform like field sobriety tests or
7 other --

8 A Yes, there were field sobriety tests performed,
9 which means the classical tests that are used today,
10 including toe to heel walking in a straight line on the
11 floor with abrupt turning, of standing in an erect position
12 and closing one's eyes and doing what we call the finger to
13 nose test and also the subjects were -- at the time that I
14 did these studies, those were the two physical sobriety
15 tests that were done.

16 They were also subjected to a variety of other
17 tests. A number of these people would be tested prior to
18 their drinking experience, with the drinking experiment,
19 please, by putting them on driving simulators in which they
20 were put through a course of operation of a driving
21 simulator, which simulates being at the wheel of an
22 automobile and you're challenged on a video screen with
23 certain driving tasks.

24 Then after drinking, they were subjected to the
25 same tests and monitored to see whether there was any

1 detriment or degradation in their performance and their
2 control versus after drinking.

3 They were also subjected to a test to monitor
4 their reaction time. That is to say that they were given a
5 challenge, first programmed to where they would be told
6 when they were to be challenged. That is they were
7 prepared for the reaction time test. And then, also, on
8 unchallenged -- I mean unannounced experiments where,
9 during the course of a conversation, they may be given an
10 unanticipated challenge or test in which, then, their
11 reactions are recorded, are noted and recorded.

12 The reading tests were done with some of these
13 individuals as far as reading comprehension as to number of
14 errors that may be made, as well as speed of reading.

15 Q How many people were involved in your studies?

16 A Over a period of some 15 years, I would say in the
17 neighborhood of three to 400 or more.

18 Q And during the course of your -- in the course of
19 analyzing your evidence that you received, the results from
20 all these tests, did you find any relationship as to
21 elimination rates of alcohol in the body?

22 A Yes, I did.

23 Q And in these studies, did you have an opportunity
24 to observe how well people who were drinking could tell you
25 how many drinks they had had during the day?

1 A Yes, this was something that was routinely done
2 with the subjects, even though they were -- this was a
3 voluntary program, these were not human guinea pigs in a
4 sense, but it was a voluntary program. In fact, the
5 subjects were even asked prior to the experiment the choice
6 they wished to have and, also, how they wished to have it
7 administered, that is the mix. And they were also asked as
8 far as their own drinking experience, what did they feel
9 would be a reasonable amount of alcohol that they would
10 wish to consume over this drinking course. Needless to
11 say, there were many occasions where we didn't give the
12 people what they may have wanted to have, but they were, of
13 course, totally aware throughout the drinking experiment
14 when they got their drink and how much it was.

15 Yet, as a matter of routine, at the end of these
16 drinking experiments, we would ask the people what, in
17 fact, they had consumed during the drinking experiment as
18 to the number of drinks and then even this would be
19 followed up the next day, that is to ask them how many
20 drinks did they have during their drinking experiment the
21 day previously.

22 Q And how often were they accurate.

23 MR. MADSON: I'll object to the broadness of that
24 question. Maybe if we had the results of the study here,
25 but, you know, it's an awful broad answer I think he's

1 going to give, how often are they accurate, in what sense.

2 JUDGE JOHNSTONE: Objection overruled.

3 BY MR. COLE: (Resuming)

4 Q In your experience, how often were they accurate?

5 A Far less than half.

6 Q And was it a tendency to overestimate or
7 underestimate?

8 A The general tendency is to underestimate.

9 Q Now can you tell the jury what alcohol is?

10 A Surely. Alcohol is a generic term that describes
11 a specific chemical group of compounds. Theoretically, any
12 organic molecule that has a OH group or a hydroxy group is
13 an alcohol. But alcohol as the term itself is used today
14 without further qualifications specifically means ethyl
15 alcohol and ethyl alcohol is a specific organic molecule,
16 one of a very large family of alcohols. There's methyl
17 alcohol, which is very closely related to ethyl alcohol,
18 and isopropyl alcohol which is rubbing alcohol. So there
19 are many different alcohols that are used industrially and
20 chemically.

21 But ethyl alcohol is the primary ingredient, the
22 single entity within intoxicating beverages.

23 Q Is ethyl alcohol considered a toxin or a poison?

24 A Well, it can be considered as such, yes.

25 Q As both or --

1 A As both because toxic means to have an undesirable
2 effect or to produce an undesirable effect upon a given
3 subject, the human subject. And any compound, practically
4 any compound, if taken in sufficient amounts can produce
5 toxic response. Water can be toxic if one drinks too much.

6 Q How is the amount of ethyl alcohol or, just for
7 convenience sake, alcohol measured, the amount of it
8 measured in a particular type of drink?

9 A As far as in the alcoholic beverages that are
10 sold, licensed alcoholic beverages?

11 Q Right.

12 A There are two ways that are used within this
13 country, within the United States, of reporting alcoholic
14 content in licensed beverages. In beers and the alcohol --
15 and in wines, the alcohol content is normally expressed in
16 percent by volume. Whereas in the distilled spirits, such
17 as the hard liquors, gins, vodkas, bourbons, scotches, it's
18 -- the normal nomenclature for recording the alcoholic
19 content is U.S. proof. U.S. proof is twice the percent by
20 volume. In other words, a 100 proof bourbon would be 50
21 percent ethyl alcohol and 50 percent something else. I
22 mean primarily water and other congeners.

23 Q What about vodka, what does the -- what is the
24 percentage of alcohol in vodka?

25 A Well, it varies with the manufacturer, the brand.

1 Vodkas can be in excess of a hundred proof. In this
2 country, most of them are less than a hundred proof; some
3 are a hundred proof, which is a hundred proof again being
4 50 percent by volume.

5 Q Could you give us an example of vodkas that are a
6 hundred proof?

7 A I think Absolut is one of the popular brands of
8 vodka. I believe that that's a hundred proof. There are a
9 number of the imported vodkas from Russia that are over a
10 hundred proof. Most of the vodkas are less than a
11 hundred. Most of them are -- well, many of them you can
12 get either way, as a matter of fact. Smirnoff is a popular
13 brand of vodka and that can be gotten in a hundred proof or
14 it can be gotten in 80 to 90 proof, the same brand, but in
15 different concentrations. Some of your bourbons are that
16 way. I recall Wild Turkey, which is a popular brand in
17 Oklahoma. It can be obtained as a hundred proof versus 86
18 proof. Some of the other bourbons are the same.

19 Q If an alcoholic beverage read that it was less
20 than .5 percent alcohol by volume, what would that mean?

21 A Well, that means it has very little alcohol in
22 it. If the label says less than 0.5 percent, it's
23 obviously less than one percent. And it doesn't really
24 tell you how much is there; it tells you it's not to exceed
25 that concentration.

1 Q What would a beer be?

2 A A standard beer within this country?

3 Q Yes.

4 A There are three general concentrations of beers
5 within the United States. In Oklahoma, for instance, the
6 state laws are such that your clubs and establishments,
7 bars, cannot serve anything other than -- I take that
8 back. Your grocery stores cannot sell anything higher than
9 3.2 percent beer.

10 Q Is that alcohol by volume?

11 A That's right, 3.2 percent by volume, right. And
12 whereas in the liquor stores in Oklahoma, you can buy what
13 we call strong beer, which may be as high as six percent.
14 Some of the malt liquors and ales may be slightly above six
15 percent. But strong beer throughout the United States,
16 without further qualification, normally refers to beer
17 that's between 4 and 5 percent.

18 Q Would you explain what happens when a person
19 drinks an alcoholic beverage? What is its effect and how
20 does the alcohol go through the body?

21 A Yes. Could I have a glass of water?

22 Q Oh, I'm sorry.

23 JUDGE JOHNSTONE: Why don't we take a break, too?
24 It's as good a time as any. Don't discuss the matter,
25 ladies and gentlemen. Don't form or express any opinions.

1 THE CLERK: Please rise. This Court stands at
2 recess.

3 (Whereupon, the jury leaves the courtroom.)

4 (Whereupon, at 11:50 a.m., a recess is taken.)

5 (Whereupon, the jury enters the courtroom.)

6 (Tape changed to C-3656)

7 JUDGE JOHNSTONE: Mr. Cole.

8 BY MR. COLE: (Resuming)

9 Q Mr. Prouty, when we left off, we were talking
10 about what happen when a person consumes alcoholic
11 beverages. How does this affect a person?

12 A Well, alcohol is known as a central nervous system
13 depressant. That is to say that it depresses the various
14 functional areas of the brain, which is the heart of the
15 central nervous system, depending upon the concentration.
16 Now in order for alcohol to have its effects, of course, it
17 must get to the brain. Now do you wish for me to --

18 Q How does that happen? How is it distributed
19 through the body?

20 A Alcohol is normally taken into the body, of
21 course, orally, that is by drinking. And alcohol,
22 different from a lot of other drugs or chemicals, some of
23 it does in fact pass directly through the wall of the
24 stomach into the blood vessels that surround the wall of
25 the stomach and get into the blood stream in that fashion.

1 However, the majority of the alcohol that we consume, in
2 order for it to get into the blood, it must first pass from
3 the stomach into the small intestine, the upper portion of
4 the small intestine, immediately below the stomach. This
5 area of the GI tract is very vascular. That is to say it
6 has a very rich blood supply and alcohol passes through the
7 wall of the gut, the small intestine, gets into the blood.
8 And this -- then the blood, of course, is not stagnant in
9 any part of the body. The blood is being moved about the
10 body by pumping action of the heart. And so the blood now
11 containing alcohol will be distributed, delivered to all
12 parts of the body. That is to say wherever the blood goes,
13 if there's alcohol dissolved in the blood, the alcohol
14 itself will go to these various tissues or organs in the
15 body. And, of course, the blood bathes the brain, which is
16 essential to life, to provide oxygen and the nutrients that
17 are needed for normal function. And as alcohol is
18 dissolved in the blood, this alcohol now will be delivered
19 to the various functional areas of the brain.

20 Alcohol is known as a progressive central nervous
21 system depressant. That is to say that it affects various
22 functional areas of the brain in a rather progressive or
23 predictable manner. It first affects those functional
24 areas that are located in what are called the higher
25 centers of the brain, not higher in the sense further from

1 the floor, but the more refined functional areas of the
2 brain that are located in the cerebral cortex, which is the
3 outer layer of the brain. That is to say that the
4 functional areas that are located in the cerebral cortex
5 are more sensitive to alcohol. And at lower concentrations
6 in the blood, there will be predictable and demonstrable
7 effects as a result of depressing these functional centers
8 located in the cortex.

9 Q What type of -- what does the cerebral cortex work
10 -- what does it have to do with how we function?

11 A Well, as I said before, it's known as the more
12 refined or the higher center in the evolutionary cycle of
13 development of man as we know it today. This is one of the
14 more refined or the last development area. And in the
15 cortex are the functional centers that are associated or
16 control our inhibitions. Inhibitions may be thought of as
17 your moral or your social breaks. And if your inhibitions
18 are depressed, that is you are no longer as inhibited as
19 what you were before you had the alcohol, then you'll
20 respond in a different manner, socially and behaviorwise,
21 than what you might have done, had you not been drinking.

22 Also in the cerebral cortex are located the
23 functional areas that are associated with reasoning and
24 judgment. And associated with reasoning and judgment is
25 decision making. That is to say that at lower blood

1 alcohol, quite low blood alcohol concentrations, one's
2 reasoning and judgment will be predictably impaired. That
3 is to say that you may not reason out a given situation
4 with the same precision and make the same logical decision
5 as a result of that reasoning as what you would do had you
6 not been drinking.

7 Then as the blood alcohol concentration increases,
8 then there are other areas of the brain that are less
9 sensitive to alcohol, but now they may be affected,
10 including one's vision can be affected at certain
11 concentrations, a sharpness of vision, that is visual
12 acuity. One's speech can be frequently affected by
13 alcohol. Many people have more difficulty in speaking
14 articulately and clearly when alcohol is present than when
15 not present. The motor movements, that is muscular
16 coordination is impaired later by alcohol. That is to say
17 that we do not move as well. This interplays in one's
18 staggering gait or one -- if a given deliberate movement is
19 made, it's made in a more uncoordinated fashion than what
20 it would be if alcohol were absent.

21 As the blood alcohol concentration increases,
22 that's reaching the brain, then more serious effects,
23 serious as far as life threatening, come into play and
24 these have to do with one's state of consciousness. In lay
25 terms, we think of people becoming sleepy or sedated by

1 alcohol and, in fact, what is happening, the alcohol is
2 depressing the functional area of the brain associated with
3 consciousness and you are not as awake and if sufficient
4 alcohol is there, one goes to sleep.

5 The alcohol can continue to affect even more vital
6 or what we call vegetative centers of the brain, those that
7 are essential to life, and these are located in what we
8 call the mid-brain and the functional areas more profoundly
9 affected or critically affected is one's respiration. That
10 is one's breathing is slowed. And if sufficient alcohol is
11 there, one stops breathing and, of course, respiration is
12 essential to life, so alcohol can kill by knocking out the
13 functional area that controls breathing. Closely
14 associated to that is our heart rate, our heart beat. It's
15 also controlled from a functional area in the mid-brain
16 and, of course, this will be knocked out about the same
17 time that respiration would. One is a consequence of the
18 other.

19 It should be understood that in thinking of this,
20 understanding this as a progressive central nervous system
21 depressant, this doesn't mean that there's more alcohol in
22 the cerebral cortex than there is in the mid-brain. It
23 means that the functional areas that are located in the
24 cortex are more sensitive to alcohol. The brain can sort
25 of be looked as a complex electronic device. It's made up

1 of many different circuit boards, one circuit board
2 controlling inhibitions, reasoning and judgment, vision,
3 speech, muscular coordination, respiration and heart beat.
4 Those latter two are much tougher. That is to say they
5 don't get knocked out by alcohol or adequately depressed,
6 except in very high concentrations. Whereas those circuit
7 boards in the cerebral cortex may be very sensitive to
8 alcohol and at even very low concentrations, they may
9 malfunction, may result in impairment.

10 Q Has scientific research linked the relationship
11 between using alcohol and its effect on the higher refined
12 areas of the brain?

13 A Yes.

14 Q We talked just for a minute, we talked about the
15 distribution of alcohol throughout the body. Now would you
16 explain how alcohol is eliminated from the body?

17 A Yes, the distribution -- I failed to say one
18 thing. It's distributed to these various tissues and
19 compartments, depending upon the water content. There's no
20 -- some drugs have a specific affinity for a given organ,
21 such as iodine for the thyroid gland and that's why you can
22 give radioactive iodine and it will cure disorders of the
23 thyroid. But alcohol is distributed not uniquely to any
24 one organ, other than the water content of that organ. But
25 the alcohol that comes into the body, of course, ultimately

1 at some time will leave the body and we call this
2 elimination. And this elimination takes place through a
3 number of routes. There are various mechanisms by which
4 the body gets rid of the alcohol. It will leave the body
5 as a result of respiration, just breathing, that as the
6 blood that is bathing the little air sacs in the lung, as
7 that blood passes through the capillary beds in the lung,
8 some of the alcohol will move from the blood into those
9 tiny air sacs which then are deflated and we blow it out in
10 our breath. This is the basis of breath testing for blood
11 alcohol content. A very small amount of alcohol leaves the
12 body in that fashion.

13 Alcohol also can be eliminated and is eliminated
14 through the pores of the skin, through perspiration. And,
15 again, this accounts for a very small amount of it.

16 Alcohol is also eliminated from the body by
17 excretion into the kidneys. As the blood containing
18 alcohol passes through the kidneys, some of that alcohol is
19 filtered out, is filtered out of the blood and appears in
20 this clear filtrate, which is urine, that then passes into
21 the blood and is subsequently voided from the body. So we
22 sort of think as the kidneys as being a pretty
23 sophisticated filter plant.

24 All of these previous routes that I've just
25 mentioned of means of elimination account for less than ten

1 percent of the alcohol that we eliminate. More than 90
2 percent, it's estimated approximately 95 percent, of the
3 alcohol that we consume is eliminated by the liver. The
4 liver -- whereas the kidney is thought of as a filtration
5 plant, the liver may be looked as a very sophisticated
6 garbage disposal until The major role of the liver is to
7 detoxify or to break down or to chew up foreign materials
8 that are brought in the body. And alcohol is handled by
9 the liver in that it chemically converts the ethyl alcohol
10 to carbon dioxide and water. And we breathe the carbon
11 dioxide out through our lungs and the water, some of it's
12 eliminated through your skin, some through your lungs and
13 some of it, of course, through your gut or through your
14 kidneys. So the liver is primarily responsible for getting
15 rid of the alcohol that we consume.

16 Q I'd like to ask you about the odor of alcohol.
17 When people say they smell alcohol, what are they actually
18 smelling?

19 A Well, it depends on, under what circumstances
20 they're doing this. Ethyl alcohol does have a
21 characteristic odor, contrary to some chemical texts I have
22 actually seen in some chemistry books that alcohol is
23 listed as a colorless, odorless liquid. But ethyl alcohol
24 does have a very characteristic odor. It's a sweet, fruity
25 odor. But when one describes the odor of alcohol on people

1 that have been drinking, what one most normally is noting
2 on a person's breath, in addition to small amounts of
3 alcohol, will be the presence of other volatile materials
4 that are in the alcoholic beverage they had been consuming,
5 such as -- we call these congeners. These are additives
6 that are present in the beer or that result from the
7 fermentation process or in the cognac as a result of the
8 fermentation and subsequent distillation or in the bourbons
9 from blending of various mash whiskies. Each have their
10 own characteristic color and odor and taste and I guess
11 that's why some people prefer scotches over gins versus
12 bourbons.

13 But these congeners are -- when we drink, we're
14 drinking those along with the alcohol and they, too, are
15 absorbed into the blood stream and they, too, will pass --
16 by the pumping action of the heart, this blood will pass
17 through our lungs and some of those are quite volatile and
18 have very strong odors. And as a consequence, when we
19 exhale or breathe out, this imparts an odor, a
20 characteristic odor to one's breath.

21 Q Do some alcoholic beverages give off more odors
22 than others?

23 A Oh, definitely so, yes.

24 Q Would you explain that?

25 A You mean into the breath of the person who's been

1 drinking.

2 Q Yes.

3 A Yes. Well, again, it depends on what's present.
4 Bourbons, American bourbons are characteristically heavier
5 and are darker and contain more congeners than do some of
6 the light, blended whiskies, such as Canadian rye
7 whiskies. Scotches, particular not malt liquor scotch, but
8 blended scotches, many of them are very heavy. Scotch
9 drinkers talk about they have a smoky taste or smoky odor.
10 This is due to the presence of the congeners that are
11 there. And as a consequence of drinking these different
12 beverages, it will result in imparting a different odor,
13 different type of odor and a different strength.

14 Q Where does vodka stand on the -- as far as giving
15 off odors?

16 A Vodka is generally considered to impart less odor
17 to a drinker's breath than some of the other heavier
18 blended whiskies. The reason for this is that vodka, which
19 is actually -- true vodkas are made from fermentation of
20 potatoes that are then distilled and vodkas are clear,
21 colorless liquids. They have less congeners than do
22 bourbons and heavy scotches, so it would impart less odor
23 to one's breath than some of the others, as would gins.

24 Q I'd like to focus for a minute on current methods
25 of analysis for blood alcohol content. Are you familiar

1 with the current forensic methods of analyzing blood
2 content in blood and urine specimens?

3 A Yes, sir, I am.

4 Q Would you explain to the jury what those are?

5 A By far, the most popular and the most frequently
6 used method for doing blood alcohol analysis today
7 incorporates an analytical instrumentation known as gas
8 chromatography. Both quantitatively and qualitatively, the
9 system is used for the identification and measurement of
10 the alcohol content. There are other what we call wet
11 clinical methods still used in many parts of this country
12 and particularly in Europe where the alcohol is distilled
13 from the blood and that distillate is then subject to what
14 we call a wet chemical analysis. And the other general
15 class of analyses for alcohol involve what we call
16 enzymatic methods of determination, where an enzyme is used
17 to measure the quantity of alcohol in a specimen. In
18 forensic laboratories, the latter method is not used that
19 commonly. It is still frequently used in clinical
20 laboratories.

21 Q Would you explain to the jury how gas
22 chromatography works to determine the amount of alcohol
23 content in blood and urine?

24 A Yes. There are two general approach -- well,
25 first, gas chromatography or a gas chromatograph is an

1 instrument, an analytical instrument that consists
2 basically of three functional components. It consists of
3 an inlet through which a sample is administered. It
4 consists of a column that is packed with a material that
5 has the capability of separating very closely related
6 organic molecules. That is to say that if you introduced a
7 mixture of closely related organic molecules, such as
8 methyl alcohol, ethyl alcohol, normal propyl, isopropyl
9 alcohols, if you introduce them as a mixture onto the
10 column, they will be separated into their individual
11 components as their vapors pass through this column. They
12 will be separated into their individual components where
13 they exit from the end of the column as separate
14 substances. So you put on a mixture of four or five
15 compounds and they come out individually as separate
16 components.

17 And the third component of that system is a
18 detector to sense the presence of that molecule or that
19 compound as it exits the column. And there are a number of
20 different types of detectors that are used in gas chromatographic
21 methods, but the most frequently used for blood alcohol
22 determination is what we call a flame ionization detector.
23 This is nothing more than, as it sounds, a tiny flame at
24 the end of the column that is composed of air and
25 hydrogen. And under zeroing or balancing conditions of the

1 instrument, the carrier gas that is used to purge or carry
2 these materials through the column, the carrier gas and/or
3 anything else that may be present in the system when it
4 exits through this hydrogen flame, it is ionized, it's
5 burned, broken into ion particles. And there are two
6 little electrodes that collect these ions and measure the
7 change in the electrical field, which gives a signal to a
8 recorder and causes deviation of a pen on a strip chart
9 that indicates the presence of a compound coming off the
10 column at a given moment in time from the time it was
11 injected.

12 Under control or blank conditions, this recorder
13 pen will trace on the paper as the paper moves on what we
14 call the zero line. That is to say it is balanced to the
15 control conditions of the analysis. Now a specimen is
16 introduced onto the column and if ethyl alcohol is present,
17 it will pass from the end of this column at a predictable
18 time, depending on the operating parameters of that
19 system. And when the alcohol appears in this flame, an
20 electrical field is created which goes through an amplifier
21 and as the paper moves, the pen moves up the paper. And
22 then as it starts to decrease as it's being dissipated in
23 the flame, that is all of it's coming off, the pen returns
24 to the zero line.

25 So the point at which that compound exits the

1 column is characteristic of a given molecule and the size
2 of the peak, the area underneath that line, is
3 characteristic of how much alcohol was present in that
4 sample.

5 So in the application to blood alcohol analysis --

6 JUDGE JOHNSTONE: Excuse me a second. Counsel
7 approach the bench, please.

8 (The following was said at the bench.)

9 JUDGE JOHNSTONE: These long lectures are, in my
10 opinion, taking more time than they're doing good. I'm
11 going to (inaudible) Rule 6, Mr. Cole, and have you start
12 getting to the point with this witness.)

13 (The following was said in open Court.)

14 BY MR. COLE: (Resuming)

15 Q Are you familiar with the method that was used to
16 collect the blood and urine samples for this matter?

17 A Yes, I am.

18 Q And would you explain that to the jury?

19 A It's my understanding that the urine specimen was
20 passed into a container that was designed for the
21 collection of urine for alcohol and drug analysis and the
22 urine was collected while observed and was subsequently
23 labeled and sealed and that the blood was collected by the
24 application of an antiseptic agent to the injection site
25 and blood was withdrawn and placed into a similar kit

1 designed for such forensic purposes and was labeled and
2 sealed.

3 Q If this package was set on a window and the window
4 was open and it was about 35 degrees near the window for
5 part of the day, would that affect the samples inside the
6 package?

7 A No, it would not.

8 Q And if that sample was placed in a galley
9 refrigerator for that evening and then picked up the next
10 morning, would that affect the substance inside?

11 A No, it wouldn't.

12 Q And if that was then taken to Anchorage on the
13 25th and placed in a locked refrigerator until the 27th,
14 would that affect the substance contained in there?

15 A No.

16 Q And have you reviewed the documents produced by
17 Compuchem about the receipt of these samples?

18 A Yes, I have.

19 Q Are you familiar with Chem West and Compuchem
20 Laboratories?

21 A Yes, I am.

22 Q Why are you familiar with that lab?

23 A Well, for a number of reasons. Number one, I've
24 been professionally associated with the director of that
25 laboratory for some five to seven years, Dr. Peat. I'm

1 aware of the work product of that laboratory as being a --
2 it is one of the NIDA certified laboratories. They are a
3 derivative of Compuchem -- they're called Compuchem West.
4 They're actually a derivative of Compuchem Laboratories,
5 which is a large analytical toxicology laboratory located
6 in North Carolina and I've been familiar with that
7 laboratory and its activities for a number of years.

8 Q Are you familiar with their standard method of
9 analysis used during the year of 1989 for blood and urine
10 analysis?

11 A For alcohol content?

12 Q Yes.

13 A Yes, I am.

14 Q Explain this, please.

15 A Well, I've had occasion to review the various
16 documents that were generated by Chem West or Compuchem
17 associated with the receipt and analysis and reporting of
18 the specimens. This occasion arose specifically, frankly,
19 at my request that if I were to issue an opinion, if I were
20 to be asked to issue an opinion concerning the competence
21 of the laboratory, I would like to have an opportunity to
22 review, firsthand, how it was done and how it was handled.

23 Q Have you had a chance to review the policies?

24 A Yes, I have.

25 Q And specifically how the samples were tested in

1 this particular case?

2 A Yes, I have.

3 Q And would you explain why the director signs off,
4 instead of performing the analysis himself? Is that a
5 common procedure in your field?

6 A Yes, sir, it is.

7 Q Why is that?

8 A Well, a couple of very obvious reasons. The
9 workload of such a laboratory absolutely precludes any one
10 person doing all of the analytical work that's done there.
11 And Compuchem, I have a personal knowledge, is a very high
12 volume laboratory, as is mine. And, also, of course, it's
13 physically impossible -- other than being physically
14 impossible to do all of those analyses, it is good
15 analytical protocol to have independent review of the
16 results that are generated by the initial analyst. This is
17 a double check on the system, if you please. I employ such
18 procedures in my laboratory.

19 Q Have you had an opportunity to evaluate the way
20 the samples were handled, once they reached Compuchem
21 Laboratories until the time they were tested?

22 A Yes, sir, I have.

23 Q And do you have an opinion as to accuracy of the
24 results that were reached?

25 A Yes, sir, I do.

1 Q Do you have an opinion as to the concentration of
2 ethyl alcohol in the blood and urine of Captain Joseph
3 Hazelwood at 10:30 a.m. on March 24th, 1989?

4 A Yes, sir, I do.

5 Q What is that opinion?

6 A That the blood alcohol concentration was 0.6 or
7 0.61 I think specifically and that the urine was 0.94. And
8 let me --

9 Q What is --

10 A Excuse me. That's 0.061 and 0.094.

11 Q What is the significance of .09 alcohol content in
12 the urine?

13 A The .09 in the urine?

14 Q In the urine sample, yes.

15 A As it relates to the blood, is that your question?

16 Q Yes.

17 A Well, as I testified earlier, the alcohol that is
18 in the blood, some of this alcohol passes from the blood
19 into the urine as the blood passes through the kidney. And
20 also I testified that alcohol is distributed in the body,
21 based upon water content of the tissue. Urine contains
22 more water than does blood. Therefore, urine will have, at
23 equilibrium, will have a higher concentration of alcohol
24 than blood does at any one moment in time. By the same
25 analogy, bone may have some alcohol, but it would have an

1 infinitely small amount, as compared to the blood.

2 Q Does the presence of alcohol in the urine confirm
3 the presence of alcohol in Joseph, Captain Hazelwood's
4 system?

5 A Yes, it certainly corroborates it, yes.

6 Q And does the fact that there is a difference
7 between the amount of alcohol found in the blood and the
8 amount of alcohol in the urine have significance?

9 A No, not in this case, not of any real
10 significance.

11 Q Why is that?

12 A Because the -- in my opinion, the urine alcohol
13 concentration in this case corroborates the concentration
14 of the alcohol in the blood. Urine alcohols are not
15 normally used forensically, a single urine sample, are not
16 normally used as definitive evidence of an absolute blood
17 alcohol concentration. The reason for this is that the
18 urine alcohol results, as I said, from the filtering of the
19 blood into the body. And if one starts drinking and has --
20 and takes a significant amount of alcohol in over a
21 relatively short period of time and if there is already
22 urine in the bladder that is alcohol free, then as this new
23 urine is formed containing alcohol and it now passes into
24 the bladder that has urine, alcohol-free urine, then the
25 subsequent mixed concentration of that urine would be less

1 than what it was at the time that the urine was formed when
2 it left the kidney.

3 So in such an instance, in early phases of
4 drinking, if one were to try to apply a fixed equilibrium
5 ratio of urine to blood, one would tend to underestimate
6 the concentration of alcohol in the blood.

7 On the other hand, if a person had an empty
8 bladder and then drank a considerable amount of an
9 alcoholic beverage and then did not void, that is to say
10 did not empty their bladder for a protracted period of
11 time, since alcohol is being eliminated at a relatively
12 regular rate from the blood, the blood may decrease to a
13 practically insignificant concentration. Yet the urine
14 which hasn't left the bladder could have a very significant
15 concentration in such an instance, such as someone drinking
16 heavily this evening, going to bed, not urinating, getting
17 up the next morning, it's conceivable that their blood
18 alcohol could be quite low, yet the urine alcohol might be
19 quite high.

20 So those are the two extremes in which a single
21 urine sample may give misleading results. However, at
22 equilibrium, there is a ratio that may be used to estimate
23 the blood alcohol concentration from a urine
24 concentration. And although the recommended protocol, if
25 one is to use urine to obtain a definitive value for blood,

1 that the procedure is to have the individual empty their
2 bladder and then after a waiting period of 30 minutes to an
3 hour now collect that urine and record the time and one
4 could make a more precise estimate of the blood
5 concentration.

6 The relationship that we observed in this case of
7 .094 of the urine concentration and 061 for the blood
8 concentration, if one were to use the equilibrium ratio
9 that is commonly accepted in the refereed literature of the
10 urine being approximately 1.33 times as concentrated as the
11 blood because it has more water -- if you apply that, if
12 you divide the .094 by 1.33, you achieve a number of 0.07.
13 If one were to use the factor that I most frequently use on
14 a single urine voiding, that is to where you don't empty
15 the bladder, wait a fixed period of time and then collect
16 the urine, the average ratio that I use is 1.5. That is
17 that the urine is 1.5 higher than the blood. And as you
18 divide your .094 by 1.5 factor, you get a .06.

19 Both of these numbers are quite close to the
20 measured concentration -- in this instance, are quite close
21 to the measured blood alcohol concentration of 061.

22 Q Based on your own studies and your knowledge of
23 the scientific literature, can one associate certain blood
24 alcohol concentrations with various levels of intoxication?

25 A Well, yes.

1 Q Would you explain why that is?

2 A Well, the reason this is is there's been a
3 tremendously large number of studies over the last 50 to 75
4 years, measuring just that, that is to say dosing subjects
5 with alcohol, having them perform various tasks and, most
6 assuredly, the greatest area of testing has been in motor
7 vehicle operation, that is in operating automobiles, and
8 measuring their impairment, measuring their mistakes,
9 measuring their errors and associating that with the
10 measured BAC.

11 But one should understand that in applying a given
12 blood alcohol concentration to intoxication or impairment,
13 one has to consider the task. That is to say one may have
14 a very significant blood alcohol concentration and if their
15 only task is to watch a home video for pleasure, that may
16 not be as consequential as if they were required to make
17 some very precise visual observations on which a technical
18 decision has to be made.

19 So the blood alcohol concentration at those two
20 task requirements can be considerably different for
21 acceptable performance.

22 Q And does that equally apply to a blood alcohol
23 concentration of .061?

24 A Well, certainly, yes.

25 Q So for some activities, it's not significant and

1 for other activities, it would be significant.

2 A In my opinion, yes.

3 Q Over the years, have there been blood alcohol
4 concentrations associated with legal impairment established
5 by municipal and state and federal bodies?

6 A Yes.

7 Q And have those blood alcohol concentrations varied
8 accordingly?

9 A Yes, they have, depending upon when these
10 pronouncements were made and what was available at that
11 time, as far as scientific research and interpretation of
12 those.

13 Q Would it be fair to say that in the operation of
14 motor vehicles, there are different blood alcohol
15 concentrations that are associated with legal impairment?

16 A Yes, sir.

17 Q Would you give the jury an idea of the variances?

18 MR. MADSON: Your Honor, excuse me, but I think
19 we're in Alaska and I think there's only one picture that's
20 really important. And what Oklahoma or North Dakota might
21 say on the subject I think is totally irrelevant.

22 JUDGE JOHNSTONE: Your Honor, I believe it's
23 relevant to show what people in other areas have done as
24 far as what is legal impairment. We have two standards
25 that have been discussed in this case, the Coast Guard one

1 and the Alaska one. And I believe that he should be able
2 to testify as to different levels of activity and the
3 various levels of impairment that are associated with them.

4 JUDGE JOHNSTONE: Objection overruled.

5 BY MR. COLE: (Resuming)

6 Q Would you give examples of this?

7 A Yes. Currently, today, to my knowledge, there is
8 not a state in the United States that has statutory limits
9 for impairment, as far as motor vehicle operation, in
10 excess of .10 in the blood. Canada, nationwide, has the
11 legal limit set at .08. There are several states, Utah I
12 know is one, I'm quite sure is one, that has even lower
13 limits of .05. There are -- other than state law, there
14 are other federal regulations that apply to alcohol versus
15 legal intoxication by some agencies.

16 MR. COLE: Your Honor, I would ask the Court to
17 take judicial notice of --

18 JUDGE JOHNSTONE: Before you do that, Mr. Cole,
19 approach the bench. Don't ask in the presence of the jury
20 on these things first.

21 (The following was said at the bench.)

22 JUDGE JOHNSTONE: Which one is it?

23 MR. : Well, Your Honor, obviously this
24 is a Coast Guard regulation that deals with administrative
25 (inaudible).

1 JUDGE JOHNSTONE: No, sir. No, sir. He's been
2 charged with being under the influence. He hasn't been
3 charged with (inaudible).

4 MR. : (Inaudible.)

5 JUDGE JOHNSTONE: Mr. Cole, under state law,
6 operating when you're 05 or less, it's a presumption that
7 the person is not under the influence of intoxication, are
8 you aware of that?

9 MR. COLE: Yes.

10 JUDGE JOHNSTONE: Okay, and you're charging this
11 person with _____ violation, Mr. Cole.

12 MR. COLE: Yes.

13 JUDGE JOHNSTONE: Under which theory?

14 MR. COLE: Well, I think we could argue both.
15 Captain Hazelwood has been charged with (inaudible).

16 JUDGE JOHNSTONE: He's charged with (inaudible)
17 driving while intoxicated, while under the influence of an
18 intoxicating liquor, that's been the charge, not while
19 operating (inaudible) because there was no test taken.

20 MR. COLE: Yes, there was and (inaudible).

21 JUDGE JOHNSTONE: Okay, step back.

22 (The following was said in open Court.)

23 JUDGE JOHNSTONE: The Court will not be taking
24 judicial notice, as requested, on the grounds of relevance,
25 also for inadequate foundation.

1 BY MR. COLE: (Resuming)

2 Q Now, Mr. Prouty, you talked about the significance
3 of a .061. In your studies when you were working and doing
4 these studies, your own personal studies, did you notice a
5 degree of impairment at levels below say, for instance, a
6 .08?

7 A Oh, certainly I did, in many people.

8 Q Would you explain that?

9 A Yes. The alcohol, again, is a progressive central
10 nervous system depressant and my studies have disclosed
11 that when people are tested using very refined methods,
12 such as using divided attention tasks where you, instead of
13 giving the individual, challenging the individual with one
14 task, you challenge them with two tasks simultaneously,
15 that they frequently will demonstrate impairment, that is
16 make mistakes and take longer to take the action that they
17 decide to take at blood alcohol concentrations far below
18 .10, far below .08.

19 This work has been clearly demonstrated and
20 reported in the scientific literature by others, that
21 alcohol never makes a person perform better, as far as the
22 motor vehicle operator. Many people may not show, may not
23 manifest any outward overt signs of intoxication until they
24 reach levels of around 03, 04, 05. But that doesn't mean
25 necessarily that they're not impaired as motor vehicle

1 operators. It's only on refined testing that one may be
2 able to demonstrate impairment at those levels. But some
3 people -- it's been the result of my studies, as well as
4 been documented by many others, that some people are more
5 sensitive to alcohol than others. That is the individual
6 will demonstrate overt signs of intoxication, frank signs
7 of intoxication at blood alcohol concentrations of .04 or
8 .05, whereas others seem to have the acquired ability of
9 masking the clinical manifestations at that same blood
10 alcohol concentration and may not appear to be intoxicated
11 until they reach higher blood levels.

12 But based upon the testing that I have done, which
13 has again been corroborated by many, many other
14 investigators, that in my opinion, all people are markedly
15 impaired as motor vehicle operators at .08. Some people
16 very definitely are impaired at concentrations far below
17 that.

18 Q In your opinion, does the extent of impairment
19 relate at all to the complexity of the task at hand?

20 A Well, certainly it does. This has been the reason
21 why committees such as our, the National Safety Council
22 Committee on Alcohol and Drugs, have, over the past years,
23 have made varying recommendations, depending upon the --
24 number one is the state of the art, that is the state of
25 the research, and number two is upon the magnitude of the

1 problem. I mean as to what the task is that's being
2 performed.

3 Q Now turning to the area of the elimination rate of
4 alcohol from the body, is alcohol removed from the body
5 immediately or over a period of time?

6 A Well, for all the alcohol to be eliminated it
7 takes a considerable amount of time, but it should be
8 understood that as soon as the alcohol gets into the blood,
9 the body initiates its steps of getting rid of it. In
10 other words, it doesn't wait until all of the alcohol is in
11 and now it says, "Let's get rid of the alcohol."
12 Elimination is really taking place as soon as it's
13 absorbed, but it takes time is the big factor to get rid of
14 it.

15 Q Have there been studies made and reported in the
16 scientific literature as to the rate of this elimination of
17 alcohol from the body?

18 A Yes, there have.

19 Q Have you performed studies on the rate of
20 elimination from the body?

21 A Yes, sir, I've made these observations myself.

22 Q And are these the studies that we talked about
23 earlier that you were involved in?

24 A Yes, these were done during the course of the
25 drinking experiments in that the individuals were tested.

1 After the drinking experiment was completed, blood and
2 breath samples were collected in many of these cases for
3 periods as long as six to eight hours after drinking had
4 ceased and measured frequently over this time course to
5 monitor the rate of decrease of alcohol from their blood.

6 Q Do all people eliminate alcohol at the same rate?

7 A No, they don't.

8 Q What have your studies shown as far as the
9 elimination rates of alcohol among people that you've
10 tested?

11 A Well, they've divulged a number of things. Number
12 one is that the rate -- I have determined an average rate
13 and a lower and upper limit for this. But I've also
14 observed that this rate of elimination can even vary within
15 the same individual under different drinking circumstances,
16 as well as vary from one person to the other person.

17 Q Well, what is the average that you observed in the
18 studies that you conducted, elimination rate? What is the
19 average elimination rate?

20 A The average rate of elimination from my studies is
21 0.0018 percent per hour.

22 Q Is that 0018 or 018?

23 A It's zero --

24 MR. MADSON: Can we try it again? I didn't get
25 it, either.

1 THE WITNESS: It's 0.018 percent per hour.

2 BY MR. COLE: (Resuming)

3 Q And --

4 A That is the average.

5 Q You said your average is 0.18, is that correct?

6 A Percent per hour, yes, sir.

7 Q We'll just assume that. What was the high that
8 you found?

9 A In the group of people that I studied, the high
10 was 0.03. That's the very upper limit.

11 Q And what was the low?

12 A The low in my studies was 0.01.

13 Q And have you been called upon to testify in the
14 past concerning that calculation or retrograde
15 extrapolation?

16 A Yes, I have.

17 Q And when you testify, what elimination rate do you
18 use?

19 A What I do as a matter of practice, based upon the
20 variance that I do see among individuals and possibly
21 within the same individual is recognizing that 95 percent
22 of the given population of people will fall within this
23 range, that is .01 to .03, that I will use for my
24 calculations a value even 20 percent below that of the
25 .01. In other words, I use an elimination rate of .008.

1 Q Well, if 90 percent falls outside of .008, why do
2 you use .008?

3 A Well, actually -- no, 90 percent -- make that
4 clear, that 95 percent of them will fall within the .01 to
5 .03. The reason I use a value even lower than this lower
6 rate is to give every reasonable benefit possible. It's a
7 20 percent cut, if you please, on the low value. So 20
8 percent of .01 is .002, so I subtract that from .01 to get
9 my value of .008.

10 The reason for this is that any error that would
11 be made in using this to make such an estimate of the blood
12 alcohol concentration at some earlier time will grossly --
13 it will tend to grossly underestimate that value.

14 Q Now what percentage of the people that you tested
15 fell under the average rate?

16 A Well, of 66 -- well, these -- on statistical
17 calculations, you have a normal bell-shaped distribution
18 curve and 66-2/3 percent would fall into that 018 and the
19 other remaining would fall into the two extreme areas,
20 keeping in mind that 95 out of a hundred of them will be
21 between the 01 and the 03.

22 Q Now these results that you talked about, are they
23 consistent with the medical information that's available in
24 the scientific community?

25 A Yes, sir, it is.

1 Q Can you, as a forensic toxicologist, based on your
2 training and experience, your personal studies and your
3 knowledge of the scientific literature, with the knowledge
4 of a given blood alcohol content at a given time, estimate
5 an individual's blood alcohol content at some time earlier?

6 A Yes, if certain information is provided as a
7 predicate for such an estimate.

8 Q What are the limitations on such -- of that
9 calculation?

10 A Well, I don't know whether you look at it as a
11 limitation, but possibly that's correct. It's a constraint
12 that the primary concern must be that the individual must
13 be in the what we call the elimination phase of his blood
14 alcohol curve. I could best demonstrate that, I think,
15 graphically, Your Honor, if --

16 JUDGE JOHNSTONE: Sure.

17 BY MR. COLE: (Resuming)

18 Q Maybe you could just do it right here on the
19 corner of this. Here's a pen.

20 JUDGE JOHNSTONE: You'd better have him pick up
21 the amplifier.

22 (The witness draws on a graph.)

23 THE WITNESS: If one could visualize, graphically,
24 what happens when a person drinks, that at zero time when a
25 person has not consumed any alcohol, obviously the BAC

1 would be zero. And then as alcohol comes into the body at
2 a rate that exceeds the body's ability to get rid of it,
3 keeping in mind that some of this alcohol has immediately
4 started to be eliminated as soon as it comes in, but if it
5 comes in at a rate that exceeds the body's rate of getting
6 rid of it, then the alcohol will accumulate in the blood
7 and you develop a blood alcohol concentration. So with
8 time, that blood alcohol concentration will rise until,
9 now, no more alcohol is coming in and, now, that blood
10 alcohol concentration, at some point in time out here, once
11 again reaches zero. That is to say it goes up, it peaks
12 and then it comes down because anywhere on this side of
13 this curve, the body is -- there's no more alcohol coming
14 in or if it's coming in, it's coming in at a rate that's
15 far less than what the body's ability is to get rid of it.
16 In other words, its presence is insignificant.

17 So if one were to have a point in time here where
18 the blood alcohol concentration is determined or measured,
19 where blood is collected and subsequently analyzed, and if
20 one wishes to estimate what the blood alcohol concentration
21 was at some time previous, that is to go back in time, one
22 would go up this curve to the point in time and make an
23 estimate that this was the blood alcohol concentration at
24 some time earlier.

25 Now it should be emphasized that in order to do

1 such a back calculation, it is very important to be assured
2 that all of the alcohol that has been consumed is now in
3 the body and is circulating in the blood throughout the
4 body and no more alcohol is coming in. And that puts you
5 on what we call the elimination phase of the curve. So
6 this is the major consideration that one has to keep in
7 mind before one can make a back calculation.

8 BY MR. COLE: (Resuming)

9 Q You can resume your seat there. Mr. Prouty, you
10 indicated that you can estimate a person's blood alcohol
11 content at an earlier time if you had certain information
12 and facts. What time of information and facts do you need?

13 A Well, again, as I have emphasized, the most
14 important fact is to be assured that no more alcohol is
15 coming in. And in order to reach that assurance, it's
16 desirable to know what the individual's body size, body
17 weight, height is. It's important to consider what the
18 person was drinking, that is when they started drinking,
19 what type beverages they were drinking, and when they
20 stopped drinking. And it's also useful under some
21 circumstances to know what the person had been eating
22 immediately prior to or at the time that the alcohol was
23 consumed.

24 Q Assuming that Captain Hazelwood weighs
25 approximately 170 pounds and stands about six foot, if he

1 stopped drinking at 8:00 p.m., except -- well, stopped
2 drinking at 8:00 p.m. and his blood alcohol concentration
3 was .06 at 10:30 the next morning, what would his blood
4 alcohol concentration have been at 12:05 a.m. that morning?

5 A It would have been approximately 0.14 percent
6 weight volume. That's using the 20 percent factor, if you
7 please, on the .01. That's using the elimination rate of
8 0.08 percent per hour.

9 Q Now that would have been, under your analysis, at
10 what -- what would it have been again?

11 A At 12:05, approximately 0.14.

12 Q Point --

13 A 0.14.

14 Q And under your analysis, what would the average
15 person that you saw in your studies?

16 A Using the 0.018, would be approximately 0.25.

17 Q And the low?

18 A Using the 0.01 percent per hour elimination rate,
19 it would be approximately 0.17.

20 Q And the high?

21 A At the high value of .03 percent per hour
22 elimination would be 0.37 or 38.

23 Q And at what time would this level have been above
24 a .10?

25 A Well, it would depend on which elimination rate

1 you were using.

2 Q Okay, at your personal rate, the rate that you
3 use.

4 A Using the rate of elimination of 0.08 percent per
5 hour, the BAC at approximately 4:30 a.m. would be just in
6 excess of a .10. The calculated value I have is 0.104.

7 Q And at the low?

8 A At the low -- that's the 01?

9 Q Yes.

10 A It would be at approximately 5:30.

11 Q And the average?

12 A Of the 018, it would be approximately 8:00 a.m.

13 Q And the high?

14 A Of using the rate of elimination of 0.03, it would
15 be at approximately 9:00 a.m.

16 Q Now why do you use the different -- why do you
17 cite the different levels of elimination rate of among
18 people?

19 A Because there's no way of, with great certainty,
20 of predicting what any one individual's rate of elimination
21 will be precisely at any one given time. As I've testified
22 earlier, we do observe different rates of elimination in
23 different people and even some differences in rates of
24 elimination of the same person at different times with
25 their drinking experience. So for this reason, one must,

1 to be -- with integrity, use a range, rather than make an
2 absolute prediction of an absolute number in a given
3 person.

4 Q Well, if the levels are as you have set them out
5 here, would you expect to see other people observing
6 physical manifestations consistent with these levels of
7 intoxication?

8 A You mean at the --

9 Q At 12:00 o'clock.

10 A At 12:00 o'clock? The physical observation that
11 one most frequently associates with intoxication is what's
12 frequently referred to as clinical manifestations. I guess
13 it's all in the eyes of the beholder. It depends on how
14 carefully one observes someone as to how precisely you may
15 make a reasonable judgment as to whether or not the
16 person's under the influence. But it must be remembered
17 that physical observation or visual observation is a very
18 crude means of predicting ethyl alcohol intoxication.
19 That's the reason we have chemical tests -- that some
20 people, as I stated earlier -- I have seen in my studies
21 people that can't hit the floor with their hat at a .06 or
22 .07 blood alcohol. That is to say they are very frankly
23 intoxicated to the most casual observation. On the other
24 hand, I have had people in my studies, adults, healthy
25 males, that have blood alcohol concentrations in excess .20

1 that did not exhibit clinical manifestations of
2 intoxication. And it was only under the most careful
3 observation and scrutiny that someone would say, "Yes, I do
4 think he's intoxicated."

5 Q If a person -- if these manifestations that you've
6 talked about, the clinical manifestations, were not as
7 observable, would that mean that a person wasn't impaired
8 or intoxicated?

9 A Well, certainly not.

10 Q Why do you say that?

11 A Well, the alcohol impairment is not based upon
12 what one physically observes, but is what one can
13 scientifically predict as to what the effect of the alcohol
14 will be, based upon literally many, many, many thousands of
15 studies.

16 JUDGE JOHNSTONE: Mr. Cole, we're a little past
17 1:30. I don't think you're going to be finished in the
18 next five minutes, are you?

19 MR. COLE: Actually, I am going to finish in the
20 next five minutes.

21 JUDGE JOHNSTONE: Okay, I think we'll just stick
22 around for another five minutes then and we'll come back to
23 cross examination.

24 BY MR. COLE: (Resuming)

25 Q Are there signs of alcohol impairment that are not

1 as observable as these clinical manifestations that you've
2 discussed?

3 A Well, yes.

4 Q Would you explain what those are in relationship
5 to a person's decision making process?

6 A Well, in -- progressively, alcohol, as it's
7 associated with impairment, particularly in association
8 with motor vehicle operation, may be looked at as being in
9 four phases. One, the first phase would -- that as far as
10 motor vehicle operation, one has to perceive or see, in
11 essence, a given situation that must be addressed. That is
12 perception is the first phase.

13 The second phase is recognition. That is to say
14 you see it as one thing, but if you now mentally recognize
15 this as a task that must be addressed, that is the second
16 phase, recognition of the problem.

17 And the third phase can be looked at, deciding
18 what to do, or that is the decision phase. And the last
19 phase is accomplishing that task. That is to say the
20 fourth phase.

21 Now in the first two phases or even in the first
22 three phases, there can be tasks that are presented that
23 demand attention that, number one, may not be seen or
24 perceived. And so that cannot be evaluated by visual
25 observation of a bystander. The second phase is the

1 sensory phase or recognition of this problem. And here
2 again, you can't look at this person and determine that
3 they now have recognized a problem. And the third phase is
4 that of decision making. It can or cannot be observed by
5 the person making the observation, depending on what that
6 decision is. If it's a decision that requires a motor
7 movement or a task, then it may become obvious. And of
8 course, the final phase, if it does involve motor movement
9 or whatever and they don't accomplish that task, then it's
10 observable.

11 Q Finally, this decision making process, could that
12 also be equated with good and bad judgment.

13 A Well, certainly.

14 Q And would that be a good indication of whether or
15 not a person was impaired by alcohol?

16 A It is, yes.

17 Q Assuming a person has a blood alcohol level of .14
18 or greater, do you have an opinion on whether their
19 reasoning, judgment and decision making would be impaired
20 by alcohol at that time?

21 A Yes, I do.

22 Q What is that opinion?

23 A It's my opinion that they definitely -- these
24 would be impaired.

25 Q Thank you, I have nothing further.

1 JUDGE JOHNSTONE: All right, we'll recess for the
2 day, ladies and gentlemen, and come back tomorrow at the
3 same time. Don't discuss the case with anybody, including
4 among yourselves. Don't form or express any opinions. And
5 please remember my instructions regarding media exposure.
6 We'll see you back tomorrow morning and be safe.

7 You may step down.

8 THE WITNESS: Thank you.

9 (Whereupon, the jury leaves the courtroom.)

10 (Tape changed to 3657)

11 JUDGE JOHNSTONE: You may get comfortable, if you
12 want. All right, Mr. Cole, you've filed an application for
13 a protective order regarding this witness. It sounds like
14 this is as good a time as any to handle it. Have you got a
15 copy of it, Mr. Madson.

16 MR. MADSON: Yes, I do.

17 MR. COLE: I don't have anything further than
18 what's in it.

19 MR. MADSON: Well, Your Honor, to me, I don't know
20 as it really needs much in the way of dressing. The State
21 is saying that I cannot ask this witness about certain
22 assumptions he makes and has up there on the board to
23 arrive at those figures. He said the most important thing
24 is the assumption that no alcohol was ingested or that the
25 rate of elimination is in the declining phase, rather than

1 absorbing. I certainly I think I can cross examine him on
2 his assumptions of what, if anything, would change his
3 calculations. That's certainly I think in the proper realm
4 of cross examination, to ask him what his assumptions are
5 based on and what his results are and why they assume
6 certain things and what happens if those assumptions are
7 incorrect.

8 JUDGE JOHNSTONE: Mr. Cole.

9 MR. COLE: Well, he definitely can go into his
10 assumptions, no doubt about that. We're not contesting
11 that. But to throw hypotheticals of, "Well, what if
12 somebody had a drink at 1:00 o'clock, 1:00 a.m., in the
13 morning," or "What if someone had a drink at 3:00 o'clock
14 in the morning," or, "What if someone had a drink at 5:00
15 o'clock in the morning," are not supported by the facts and
16 do no add -- and go merely to confusing the jury. I
17 believe that's what the purpose of the language in Evidence
18 Rule 703 talks about. I think that it's got to be some
19 type of evidence that is within the realm of possibility
20 and to do otherwise just confuses the issues in the matter.

21 JUDGE JOHNSTONE: Okay, I think it is within the
22 realm of possibility. There's been evidence that Captain
23 Hazelwood showed no signs of impairment at the time or
24 right near the time of the grounding. It wasn't until some
25 time after that that people smelled alcohol on his breath.

1 I think inferences from that could be argued that he was
2 not under the influence at that time and perhaps didn't
3 start drinking until afterwards. I make that statement to
4 remind you, I say "inference," because an argument can be
5 made. Your case you cite is a civil case, not a criminal
6 case, and I think that would unduly restrict cross
7 examination to prevent the Defendant from asking the
8 witness hypothetical questions based on possibilities in
9 this case. So your motion for protective order is denied.

10 Is there anything else we can do before we --

11 MS HENRY: Your Honor, there are a couple of
12 stipulations regarding exhibits, but there's going to be
13 argument as to relevance, I believe, on some of those
14 exhibits and that should be taken up at some point.
15 There's also a request by attorneys for a witness that part
16 of that be taken up in camera. If I can approach the bench
17 with Counsel, I can explain that in a little more detail.

18 JUDGE JOHNSTONE: A witness wishes to have this
19 taken up in camera?

20 MS HENRY: Yes.

21 JUDGE JOHNSTONE: All right.

22 (The following was said at the bench.)

23 MS HENRY: One of the documents we're trying to
24 get in is Kagan's personnel file. The request came from
25 Mr. Kagan's attorney, local attorney, _____ Oliver.

1 She requested that that portion of the argument be taken up
2 in camera. I told her I would advise you of that.

3 JUDGE JOHNSTONE: Did she give you a reason why?

4 MS HENRY: Because of the nature of the files and
5 she doesn't want the press, I guess, to know.

6 JUDGE JOHNSTONE: Is that the reason for the
7 camera request; the State's not making the request is it?

8 MS HENRY: No. I told her I would advise you of
9 her request and she said she would be available to do that
10 (inaudible).

11 JUDGE JOHNSTONE: Obviously, this is for the
12 purpose of laying a foundation to omit these records. Was
13 that the purpose?

14 MS HENRY: Yes, the foundation has been stipulated
15 that they're business records. The issue is whether or not
16 they're relevant and also, on behalf of Mr. Kagan, she is
17 imposing them being admitted into the public record.

18 JUDGE JOHNSTONE: Do you have them?

19 MS HENRY: Yes.

20 JUDGE JOHNSTONE: Okay, and you have a copy,
21 also? Did she give you a reason why, that there's
22 something contained in there that's -- perhaps you should
23 give me a copy of the records and I can look at them and I
24 can make a better determination if an in camera proceeding
25 is appropriate. Why don't I just take a look at them

1 between now and tomorrow morning and -- I think I won't
2 take a look at all of them. This is too voluminous for me
3 to get through. Can you notify her and have her come down
4 tomorrow morning and we can take this up at 8:15?

5 MS HENRY: All right.

6 JUDGE JOHNSTONE: Okay. And we'll decide then
7 whether it needs to be in camera or not. Would there be
8 any objection if she came into my chambers and presented to
9 me the reasons why she wanted this thing in camera or not?
10 Any objections?

11 MR. : No objection.

12 JUDGE JOHNSTONE: Okay, would you ask her to come
13 down to my office at 8:15 tomorrow morning?

14 MS HENRY: Okay. And there's going to be, I
15 understand, a dispute on the relevance of these documents.

16 MR. MADSON: Definitely, very definitely.

17 JUDGE JOHNSTONE: Okay, are there any other
18 documents that are going to be offered that we can resolve
19 now without the in camera question?

20 MS HENRY: There's two others that are
21 stipulated. I don't know if there's going to be an
22 objection to them or not.

23 JUDGE JOHNSTONE: I take it, Mr. Cole, you only
24 have one other witness, this is it.

25 MR. COLE: Yes.

1 JUDGE JOHNSTONE: As soon as this witness is
2 finished, you're closing.

3 MR. COLE: (Inaudible.)

4 JUDGE JOHNSTONE: Mr. Madson, here's another one.
5 Why don't you go ahead and take a look at those at your
6 convenience.

7 MR. MADSON: This one I can be real quick on. We
8 don't have any objection to this. I think (inaudible).

9 JUDGE JOHNSTONE: That's Exhibit Number 32. It
10 will be admitted. You can offer it in front of the jury
11 when the time comes. But if you want to take a look at
12 those, you can, and you can let me know tomorrow morning.
13 Is there anything else that we need to do now or that we
14 can do that will save time? I expect, Mr. Madson, you'll
15 be taking some time with this witness on cross.

16 MR. MADSON: Maybe a half-hour, Your Honor. I'm
17 not going to prolong it.

18 JUDGE JOHNSTONE: What's the defense pleasure. I
19 was hoping we'd get done with this witness as you said
20 yesterday we might be able to, so we wouldn't have to call
21 the jury in just to let them go a half-hour later. I'm a
22 little concerned about that timing.

23 MR. MADSON: Well, it's very likely that might
24 happen. I don't know about redirect. But let's say an
25 hour at the outside and that's the State's last witness and

1 then we'd have argument which obviously is going to have to
2 go for awhile.

3 JUDGE JOHNSTONE: You'll be prepared with your
4 motions?

5 MR. MADSON: Yes.

6 JUDGE JOHNSTONE: Okay. What do you figure, a
7 couple of hours for motions?

8 MR. MADSON: Oh, at the most, Your Honor. I know
9 it's been a long case, but I think the issues are still
10 pretty straightforward.

11 JUDGE JOHNSTONE: Then would you be able to,
12 assuming it was necessary, to call your first witness on
13 Thursday morning?

14 MR. MADSON: Oh, yes.

15 JUDGE JOHNSTONE: Would you like the remainder of
16 the day off then tomorrow to get prepared or do you --

17 MR. MADSON: I think we -- it's conceivable we
18 could even have -- we could start tomorrow. We'd like to
19 go, if we could.

20 JUDGE JOHNSTONE: Oh, okay, I was doing this to
21 accommodate you, it's your request earlier, and if you
22 don't need it, then I'm ready to go, too.

23 MR. MADSON: We've got people that are coming up
24 from Valdez in anticipation of tomorrow, so we can get them
25 on.

1 JUDGE JOHNSTONE: That's fine. We'll just hold
2 the jury in the jury room during the motions and, depending
3 on the outcome, bring the jury back in. Okay, anything
4 else we can do?

5 MR. MADSON: No.

6 JUDGE JOHNSTONE: Okay, we'll stand at recess.

7 THE CLERK: Please rise. This Court stands at
8 recess.

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SUPERIOR COURT)
) Case No. 3ANS89-7217
STATE OF ALASKA) Case No. 3ANS89-7218

I do hereby certify that the foregoing transcript was typed by me and that said transcript is a true record of the recorded proceedings to the best of my ability.

Doris A. Cutler

DORIS A. CUTLER

VOLUME 24

STATE OF ALASKA

IN THE SUPERIOR COURT AT ANCHORAGE

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In the Matter of:	:
STATE OF ALASKA	: Case No. 3ANS89-7217
versus	: Case No. 3ANS89-7218
JOSEPH J. HAZELWOOD	:
-----	:

Anchorage, Alaska

March 7, 1990

The above-entitled matter came on for trial by jury before the Honorable Karl S. Johnstone, commencing at 8:40 a.m. on March 7, 1990. This transcript was prepared from tapes recorded by the Court.

APPEARANCES:

On behalf of the State:

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C O N T E N T S

WITNESSESSTATE'SDIRECT CROSS REDIRECT RECROSS

Richard W. Prouty

- 12 56 63

DEFENDANT'S

Emily Kaiser

104 112 115 -

Charles Dudley

117 123 131 -

Michael E. Craig

133 143 153 155

- - -

E X H I B I T S

STATE'SIDENTIFICATION IN EVIDENCE

32

- 67

151

- 68

152

- 68

DEFENDANT'S

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P R O C E E D I N G S

(Tape C-3657)

THE CLERK: -- Karl S. Johnstone presiding is now in session.

JUDGE JOHNSTONE: Thank you. I've thought about Exhibit 153 now. Relevancy objection, is that what I'm going to hear from the State?

MR. MADSON: That's the material that the Court examine in camera.

JUDGE JOHNSTONE: Well, that's right and, I also, pursuant to Counsel's approval, spoke to Mr. Kagan's attorney in chambers about the material.

MR. MADSON: Yes, Your Honor, it's relevancy, plus a lack of foundation, really. There's no showing that this has been connected to Captain Hazelwood in any way, that we knew about it, had access to it, read it or had any knowledge of it whatsoever.

JUDGE JOHNSTONE: Mr. Cole, do you have some sort of theory that I may not be understanding? It seems to me that you're going to have to show that Captain Hazelwood had access to this or knew about the material contained in this personnel file before it would come in, before it would have any meaning.

MR. COLE: Well, our theory, Your Honor, is that, first of all, we believe that that evidence should be

1 presented to show that he should have known that Mr. Kagan
2 was incompetent. And what that shows is other people have
3 evaluated Mr. Kagan during short trips and found him to be
4 incompetent and Captain Hazelwood should have drawn the
5 same conclusion, based on that and based on the evidence
6 that was presented by Mr. Cousins that he related this
7 information --

8 JUDGE JOHNSTONE: Related what information?

9 MR. COLE: That Mr. Kagan had problems, that he
10 was uncomfortable with the situation. Mr. Kunkel indicated
11 that he had sailed with him in the past and he had had
12 steering problems in the past, that information, and the
13 information from Captain Stalzer who told Captain Hazelwood
14 that this person had a problem and that he should watch him
15 closely.

16 JUDGE JOHNSTONE: My question still comes down to
17 when you say he should have known this information, how
18 could he have possibly known anything contained in Mr.
19 Kagan's personnel file? I mean if you say he should have
20 known, is there some access he had to it that he didn't
21 take advantage of?

22 MR. COLE: It's not those actual documents. It's
23 he should have known how he performed. Those documents
24 show how other tanker captains have examined Mr. Kagan in
25 his prior performance and reached the conclusions that they

1 had in short periods of time. We're offering it to prove
2 that Captain Hazelwood is no different than any other
3 tanker captain and should have been able to recognize these
4 acts as he observed Mr. Kagan and drawn similar conclusions
5 to those that are maintained in that.

6 JUDGE JOHNSTONE: I'm going to deny the
7 application to admit these. This document, Exhibit 153,
8 contains medical information. It contains voluminous
9 information that is very personal to Mr. Kagan. There's no
10 indication that this file was accessible to Captain
11 Hazelwood. There's no information that he knew about this
12 file or knew the contents of this file and, therefore, it
13 has no meeting. You admitted into evidence witnesses
14 testimony to the fact that Captain Hazelwood was told about
15 Mr. Kagan, but you're not going to be able to get this file
16 in. So that's --

17 MR. COLE: Judge, can I just ask one other
18 question? There is an evaluation in there by Mr. Kunkel.
19 We would ask that that be placed in. He was impeached on
20 that and I think the jury should be able to see what Mr.
21 Kunkel actually wrote down in his evaluation. He said that
22 he evaluated him in 1985. He gave that. It's inconsistent
23 with the statements that he gave in Court and we believe
24 that that particular evaluation should come in.

25 JUDGE JOHNSTONE: Well, we'll take care of that

1 some other time. That's not how you propose this to me and
2 I don't know which one you're talking about. This is about
3 a one-inch sheaf of documents. So you can approach the
4 bench, retrieve this document and at such time as you find
5 the one you're referring to, show it to Counsel and we can
6 argue it during a break.

7 MR. COLE: I have one other matter to take up,
8 Your Honor.

9 JUDGE JOHNSTONE: All right.

10 MR. COLE: That is based on the conversations of
11 Mr. Madson yesterday, my review of the record and Mr.
12 Prouty's testimony, we would move at this time, pursuant to
13 Criminal Rule 7E, to amend the information which charges
14 Captain Hazelwood with operating a water craft while
15 intoxicated to include 2835030(A)(2), which is basically
16 the .10 statute. I think the evidence supports that, given
17 Dr. Prouty's -- Mr. Prouty's statement.

18 The rule says that this can be done at any time.
19 This is not an additional type of count. It's not another
20 count. It's just the same count under a different theory.
21 And the only limitation that the Court should take into
22 consideration is whether or not the substantial rights of
23 the Defendant are prejudiced.

24 And I would note that I have a copy of Mr.
25 Madson's opening statement.

1 MR. MADSON: 2835030(2)?

2 MR. COLE: Right.

3 JUDGE JOHNSTONE: Well, before you get any
4 farther, how do you overcome the very first line that says,
5 "When, as determined by a chemical test taken within four
6 hours after the alleged offense was committed . . ."? Or
7 did I miss something?

8 MR. COLE: Well, Your Honor, that goes to our
9 theory that we filed a trial memorandum a long time ago
10 that the Court hasn't taken up that Captain Hazelwood was
11 operating a water craft during the time, the whole time
12 that he is on board that vessel, the vessel is being used
13 as a tanker, commercial tanker, within four hours. He
14 doesn't get relieved until 11:00 o'clock that night. We
15 filed a trial memorandum on that way prior to the trial
16 even beginning. At 11:00 o'clock, he's still operating
17 this water craft. And that was our theory at the
18 beginning.

19 JUDGE JOHNSTONE: 11:00 o'clock in the morning?

20 MR. COLE: Yes. That's what the whole purpose of
21 the trial memorandum that we filed in the beginning -- this
22 is not like what we consider as operating a motor vehicle.

23 JUDGE JOHNSTONE: Okay, the statute says, "When, as
24 determined by a chemical test taken within four hours after
25 the alleged offense was committed, there is 0.10 percent

1 or more by weight of alcohol in the person's blood or 100
2 milligrams or more of alcohol per hundred milliliters of
3 blood or when there is 0.10 grams or more of alcohol per
4 two ten liters of the person's breath."

5 Now as I understand it, there is no chemical test
6 that reflects that much. You have to back it off of the
7 .061.

8 MR. COLE: That's correct.

9 JUDGE JOHNSTONE: Mr. Madson?

10 MR. MADSON: Well, Your Honor, I think there are
11 two problems here. One is Mr. Cole related, he said to get
12 in the four-hour period, the Court has to make a finding
13 that whatever Captain Hazelwood did at a time when the
14 engines were shut down, nothing was going on, he's just
15 sitting there after the test was taken and doing absolutely
16 nothing, or even the four hours prior to that time when
17 nothing is occurring and the ship is incapable of being
18 operated, the Court has to make a finding that this
19 constitutes operation so that it could come within the
20 four-hour period.

21 Now Mr. Cole is correct, we filed trial
22 memorandums on that and the issue is really very, very
23 simple. What the State was doing in that memorandum was
24 trying to show that this should come within the context of
25 the definition of operating a motor vehicle, as determined

1 by our various courts of appeal. In there, because the
2 legislature did not define what "operate a motor vehicle"
3 means, the Court did it for them and it basically said,
4 "Since there's no definition by the legislature, we hold
5 that the motor vehicle doesn't have to be movable." In
6 other words, a guy could be convicted of drunk driving
7 while he's stuck in a ditch, totally incapable of moving
8 the vehicle, but the vehicle still has to be operable in
9 that sense. Connelly versus the Division of Motor Vehicles
10 at least infers that the vehicle must be operable, but not
11 necessarily movable.

12 But we have the situation here where there is a
13 definition of operating a water craft. And it says that it
14 is to navigate or use a vessel which is used for or capable
15 of being used for transportation on water. Now that makes
16 it pretty clear that whatever you want to call it, it has
17 to be used for and, more importantly, capable of being used
18 for transportation. That means moving something from Point
19 A to Point B, the only logical explanation for that. And
20 if that's the sense, in that sense then, when a vessel's
21 stuck on a reef, it obviously is not within that
22 definition. So that's the first problem.

23 The second one is you don't have the .10 theory
24 under the four-hour rule because, as the Court has pointed
25 out, it requires the test to be taken within that period.

1 I think certainly they can use the results and the Court
2 has already held this, based on Williams versus State.
3 They can use the results to relate back to infer that he
4 would be impaired because this would be consistent with a
5 high blood alcohol reading. But to say that he can go
6 further outside that four-hour period and say, "You are
7 guilty under the statute," just doesn't follow. All that
8 statute says is that, essentially, if you take this test
9 within this time, then within this period of time, the
10 legislature determined that the test is valid enough and
11 the time period is close enough that it is logical and it
12 follows that one could be convicted. But outside that time
13 period, you can still use the test, but not to show the .10
14 theory.

15 JUDGE JOHNSTONE: Anything further, Mr. Cole?

16 MR. COLE: Well, my only response is I don't
17 believe Mr. Madson has accurately set forth what the
18 definition of the use of a motor craft is. It's using or
19 being capable of being used. The tanker was capable of
20 being used in the transportation because it was being used
21 as that. It had oil right there. Now maybe it wasn't
22 going any place at that time, but it was capable of being
23 used as a water craft.

24 JUDGE JOHNSTONE: Okay, your application is
25 denied, Mr. Cole. If the legislature had intended this to

1 mean that you could relate back to ten percent, it would
2 have said that. The statute is couched in terms of there
3 being a ten percent or more by weight of alcohol at the
4 time the chemical test is taken. So we'll proceed on the
5 basis of the original information charging under the
6 influence. Are we ready now for the jury?

7 MR. MADSON: Yes, sir.

8 (Whereupon, the jury enters the courtroom.)

9 JUDGE JOHNSTONE: Sure, you want some water? Is
10 that what you asked for? I didn't hear you.

11 THE WITNESS: No, am I resworn?

12 JUDGE JOHNSTONE: No, I'll advise the jury that
13 you're still under oath. And, Mr. Cole, before you rest or
14 at some appropriate time, you can offer the one exhibit
15 which has been admitted -- the two exhibits that have been
16 admitted and the other one provisionally in front of the
17 jury.

18 I guess there's a couple of other documents you
19 brought to my attention. You need to offer them in front
20 of the jury.

21 Good morning, ladies and gentlemen. We'll start
22 out with the cross examination of the last witness. And I
23 remind you, sir, that you're still under oath.

24 Whereupon,

25 RICHARD W. PROUTY

1 having been called as a witness by Counsel for the State,
2 and having previously been duly sworn by the Clerk, was
3 examined and testified as follows:

4 CROSS EXAMINATION

5 BY MR. MADSON:

6 Q Good morning, Mr. Prouty.

7 A Good morning.

8 Q Now yesterday, you spent a considerable period of
9 time telling the jury about your experience and credentials
10 in the field of alcohol, studies regarding alcohol, the
11 physiology and effect on human beings, right?

12 A Yes, sir.

13 Q If I understand correctly, you did not get your
14 Ph.D., but came close to it. In other words, you didn't do
15 your dissertation.

16 A That's correct.

17 Q It appears, however, that that didn't harm your
18 career very much. It seems like you have a good,
19 responsible job in the same field.

20 A To date, yes, sir.

21 Q Mr. Cole asked you about studies you have done
22 yourself in this particular area. From what you told us
23 yesterday, I heard you say something about a study you did
24 in North Dakota involving a number of people, a controlled
25 drinking setting sort of thing.

1 A Yes, part of it was done there, yes.

2 Q Well, was this -- where else was it done?

3 A Well, I estimated having evaluated some three to
4 400 subjects over the period of time and the majority of
5 those were in North Dakota. I say the majority, certainly
6 more than half. During my tenure in North Dakota, I also
7 served as a consultant to the Bureau of Criminal
8 Apprehension Laboratories for the State of Minnesota who
9 had a similar breath testing program as what we did in
10 North Dakota and I was an invited lecturer and participant
11 also in their training program, which was essentially
12 modeled after my program in North Dakota, not just by
13 coincidence. The director was a protégé of mine, one of my
14 graduate students. And so there were a number of people
15 there. I also did some in Maryland during graduate
16 studies.

17 Q Excuse me for interrupting, but are you talking
18 about actual studies in Minnesota that you participated in?

19 A Yes, I participated in some of those, yes.

20 Q By the way, do you know Mr. Thomas Burr there,
21 from that?

22 A By name, I do.

23 Q In Minnesota.

24 A Yes.

25 Q Getting back to the, well, the studies you did, if

1 I understand correctly, people consumed known quantities of
2 alcohol in a social setting and then you would ask them
3 questions or ask them to do certain things, certain tasks,
4 to evaluate performance as they went up the scale on blood
5 alcohol levels, right?

6 A Yes, and down the scale, also.

7 Q And this was done in a social setting?

8 A The drinking was, yes.

9 Q Sit around and you furnish the drinks, I take it.

10 A Surely, by the state.

11 Q It sounds like a good party.

12 A It's very educational, as a matter of fact.

13 Q And, anyway, when -- you mentioned -- I guess the
14 part I was concerned about most was the driver simulation
15 thing. This was done in connection with operating a motor
16 vehicle study, wasn't it?

17 A Yes, sir, that's what most of these studies have
18 been done, in that area.

19 Q Sure, to see how well a person can drive or
20 operate after they've consumed alcohol, right?

21 A That's correct.

22 Q And who sponsored this or paid for this? Was this
23 a state or federal grant of some kind?

24 A It was actually both, Mr. Madson, in my program in
25 North Dakota. It was partially funded by State of North

1 Dakota monies that were appropriated dollars. My program
2 was also supported by what was called 407 monies. This is
3 a classification of federal dollars --

4 Q Okay, I don't need to go --

5 A -- from the federal government, as well as the
6 Minnesota programs.

7 Q Okay. And you -- was somebody else involved in
8 the study with you, the North Dakota one, for instance? I
9 mean was it just you or others?

10 A Oh, my staff, yes.

11 Q Did you publish anything on that?

12 A The studies, yes, I have one publication on this.

13 Q When was that published?

14 A This was a publication that was done during the
15 same training programs utilizing the drinking subjects in
16 which we also evaluated screening, testing devices that
17 were being used at that time for roadside testing.

18 Q The portable breathalyzers, is that what you're
19 saying?

20 A You may wish to call them that. Portable breath
21 testing instruments that were being introduced in this
22 country and this was an evaluation study. And,
23 incidentally, that study was also funded by the Insurance
24 Institute of Highway Safety in Washington, D.C. That was
25 published in 1970.

1 Q In 1970.

2 A Yes, sir.

3 Q When was the last study you did on this subject?

4 A I would say in the late '70s, somewhere between
5 the late '70s and mid-'80s because, as I said, even after I
6 moved to Oklahoma, I participated in a number of these
7 drinking experiments and observations in Minnesota as a
8 guest of the participant, as well as I've done the same
9 thing on several occasions in Oklahoma in their testing
10 program. But it's been certainly not within the last five
11 to seven years.

12 Q Is it fair to say, sir, that the research in this
13 subject is kind of ongoing, there are a number of people
14 doing continual research projects on this topic?

15 A I would say yes.

16 Q And would you say that you are certainly not the
17 only expert in the field of alcohol?

18 A I certainly would not ever say that.

19 Q Would you agree that there is some disagreement
20 among the experts in this field?

21 A In what area?

22 Q How about absorption rates, for example,
23 elimination rates?

24 A I don't know exactly what you mean, disagreement.
25 Different people observe different things, depending upon

1 the way the drinking experiments are conducted. This is
2 one of the major reasons why those of us in the field use
3 ranges for prediction, you know, blood alcohol
4 concentrations and rates of absorption, rather than giving
5 a finite number.

6 Q Sure. For instance, you said that, normally, on
7 elimination rates, it's .01 to .03, that's the general
8 range of 95 percent of the population.

9 A Yes, sir.

10 Q Is it true, sir, that other researchers have even
11 found more extremes than this, in other words, down to say
12 .004 to .04?

13 A I have seen such numbers published, yes.

14 Q So you have seen material like that published --

15 A I have seen that published, yes.

16 Q -- which extends the absorption -- elimination
17 rates, rather, more than .01 to .03.

18 A I haven't seen ranges in great exception to that
19 range, but I have seen individual reports of single
20 measurements that were made outside those limits. That
21 would be in that five percent, I would presume.

22 Q Then how about -- you didn't talk at all about
23 absorption rates yesterday. Maybe you did, but I may have
24 missed it.

25 Now people don't absorb alcohol exactly the same,

1 do they, me, you or anybody else?

2 A No. In fact, there's a slight difference between
3 male and females on absorption. But there's no so much a
4 sex difference or individual difference as far as
5 individual size. It depends upon the concentration of the
6 beverage you're consuming, the total amount of course and
7 the presence of food stuff in the stomach influences the
8 absorption.

9 Q Now, generally, don't people more or less agree,
10 experts more or less agree that after the last drink is
11 consumed, within an hour or two, say an hour and a half,
12 the vast majority of people are supposed to have absorbed
13 all the alcohol?

14 A I'd say that's a reasonably fair statement, yes.

15 Q Would you agree that some researchers have found
16 that it could be longer than that, even up to three hours
17 before --

18 A I have seen that published, yes.

19 Q So is it fair to say that there is, again, a range
20 of absorption rates which may -- well, it's somewhat
21 flexible, say it isn't definite, it isn't certain, is that
22 correct?

23 A Oh, certainly.

24 Q Now, yesterday, you said -- you took one point.
25 There's a .061 blood alcohol reading at a given time,

1 right?

2 A Yes, sir.

3 Q Now if I understand correctly, you cannot say that
4 the urine test that was performed about the same time can
5 be used by itself, just by itself, to determine what a
6 person's blood alcohol reading was at some point in time.

7 A In itself alone, in my opinion, no.

8 Q So looking at the blood test, then, you have one
9 point taken at one particular point in time, right?

10 A Correct.

11 Q And then by your hypothesis, you can take that
12 point and using these different elimination rates and
13 project backwards and get hypothetical, at least, blood
14 alcohol rates, or levels rather, at a given time.

15 A Within the predicate that was offered, yes.

16 Q And of course, that predicate, as you stated,
17 assumes certain things.

18 A Yes, sir.

19 Q Of course, it assumes that within this entire
20 period of time, the subject did not consume any alcohol.
21 In other words, I think Mr. Cole told you yesterday you
22 have to assume drinking in Captain Hazelwood's case stopped
23 at 8:00 o'clock and no drinking occurred after that.

24 A I think that was the -- yes.

25 Q Now what about Moussy beer? You indicated that

1 it's a very low alcohol content, but it has some alcohol,
2 does it not?

3 A Well, I don't really know that it has. I've never
4 tested Moussy beer. I've tested many, many different
5 brands of beer in the laboratory. Frankly, it's one I'd
6 never heard of until I was exposed to this case. The label
7 reflects that it does not contain in excess of 0.5 percent
8 by volume. That doesn't tell me that it has any alcohol in
9 it at all, but it says that it should not be --

10 Q But it could contain --

11 A Yes, sir. It should not be in excess of .5
12 percent.

13 Q You didn't personally test it to see --

14 A I did not.

15 Q -- whether it did or not. Then, sir, I would
16 imagine that even if it has a very low alcohol content, if
17 you drink a large quantity of this stuff, you're increasing
18 the amount of alcohol, regardless of how small it is.

19 A No, that wouldn't happen, Mr. Madson, with a
20 beverage that has that low a concentration, if one were to
21 even assume that it did in fact have .5 percent. The
22 body's rate of elimination, the processes that I elaborated
23 on somewhat yesterday, the rate of elimination of the body
24 is such that it exceeds -- actually, the human body of
25 someone weighing 160, 170 pounds can eliminate nine grams

1 of alcohol per hour and one Moussy beer, if it did contain
2 .5 percent by volume, only contains 1.8 grams. So one
3 could continuously drink such a beverage and never
4 accumulate a significant blood alcohol.

5 Q In your opinion, you're eliminating faster than
6 you can take it in, is that what you're saying?

7 A Or at the same rate or faster, yes.

8 Q However, if a person drank say between 7:00 and
9 8:00 o'clock that morning - in other words, drinking
10 supposedly, according to your hypothesis, stopped at
11 8:00 o'clock p.m., 8:00 p.m., but the following morning,
12 let's say within three hours of the time the test was
13 taken, if alcohol other than Moussy was taken to drink,
14 let's say something -- regular alcohol, that would of
15 course throw your hypothesis out the window, so to speak.

16 A If I understood your question, Mr. Madson, that --

17 Q I don't know if I understood my question, either.

18 A Well, it was a bit complex. You said assume that
19 something other than Moussys were drank at some time later
20 in this time period, 4:00 or 5:00, 6:00 o'clock, what
21 influence would this have on a back calculation.

22 Q Right.

23 A Obviously, it would impair such a calculation.

24 Q Impair it to the point where it certainly has a
25 reduced forensic or scientific value.

1 A Yes, sir. And it's all dependent, Mr. Madson, on
2 -- the hypothetical doesn't give me anything to work with,
3 I mean as far as the amount of alcohol.

4 Q All you got is one point, isn't it? I mean that's
5 essentially it. You've got .06 and you've got to work with
6 that.

7 A That's correct, sir.

8 Q Now on that particular subject, you came up with
9 some figures yesterday and I don't pretend to be an expert,
10 but let me see if I can put this on here. You mentioned
11 the bell curve. Is this kind of what you're referring to?

12 A Sort of, yes.

13 Q What do you mean, sort of?

14 A Well, more dead of a straight line on the
15 descending phase.

16 Q Okay, this part here, you mean?

17 A No, the down slope on the other side.

18 Q Oh.

19 A You have it tailing off for some reason there.

20 Q Oh, I see. But to illustrate my point -- and,
21 certainly, if you want to come up and do it, please do.
22 But this, of course, is the -- when you're talking about
23 the elimination rates, right -- let's say .01 --

24 A We've used different elimination rates.

25 Q Right. But let's just assume we put this on the

1 scale, okay.

2 A All right.

3 Q I mean we can change that to .008, if you want,
4 and change this upward, but just as a rough scale. If I
5 understand correctly, what you're saying is that 95 percent
6 of the population from your studies would show that --
7 would fall between here and over here somewhere.

8 A I'm sorry, I understand why the bell shaped curve,
9 right.

10 Q Yes.

11 A You're talking about the elimination rates.

12 Q The rate, right.

13 A Yes, sir, 95 percent would fall between .01 and
14 .03.

15 Q And then at the center, I think you said it was
16 about .018, is that right?

17 A Yes, sir.

18 Q So you say the vast majority of people, then,
19 should fall in this range, the average range.

20 A That's right, yes.

21 Q So if you take this figure, which is 20 percent
22 less, as you indicated yesterday, and come up, go backwards
23 from -- let's see, what time -- I think you said it was
24 around 10:30, right, a.m., when the test was taken?

25 A That was my understanding, yes, sir.

1 Q Okay, assuming it was 10:50, would that change
2 anything, 20 minutes later?

3 A Not --

4 Q Not significantly?

5 A Not of any real consequence, no.

6 Q Assuming also the drinking stopped at 7:30 and not
7 8:00 o'clock p.m., would that change anything
8 significantly?

9 A No, sir.

10 Q Okay. So you said that you could come up with a
11 figure about .14 at midnight.

12 A Yes, sir.

13 Q And that would be some, almost 11 hours earlier,
14 right?

15 A Yes, sir, 10-1/2 to 11.

16 Q Mr. Prouty, you indicated that you testified over
17 a thousand times.

18 A I said somewhere between 800 and a thousand times,
19 yes.

20 Q Okay. Well, in that range, if my calculations are
21 correct, even in 30 years, that's more than one a month, is
22 that fair to say?

23 A I haven't calculated it out, but I would trust
24 your arithmetic.

25 Q Well, you know, assuming it was a thousand in 30

1 years, that comes to over -- yes, according to me, that's
2 more than two a month, according to my math, but if it's
3 800, it would be less than that.

4 A There have been periods of time that I've
5 testified five days in a week.

6 Q Five different cases or --

7 A Five different cases.

8 Q In one week.

9 A Yes, sir.

10 Q Is it fair to say, sir, that your testimony in
11 these prior cases wasn't on the retrograde extrapolation in
12 all situations?

13 A In all of these -- oh, no, sir.

14 Q You had a variety of things you testified about.

15 A Oh, yes.

16 Q But you do other work besides this.

17 A Yes, sir, I do.

18 Q In retrograde extrapolation cases -- now, again,
19 that's taking the point and working backwards, based on
20 certain assumptions, right -- how many times would you say
21 you've testified?

22 A Oh, dozens. I really don't know. I don't have
23 these quantified, Mr. Madson, obviously. I testify about
24 things other than alcohol, too, as you might imagine.

25 Q Well, that's what I thought you said earlier. But

1 my question, if you can recall, just give a --

2 A No, I really can't give a number that I would be
3 confident with, but it's several dozen times, maybe 50
4 times. I don't know.

5 Q Okay. But my point is in those 50 times, what was
6 the widest range of time you were asked to go backwards?
7 What's the outside limit in your prior cases?

8 A I do not know what was the widest range, but I can
9 say this, that this case incorporates a back calculation
10 for a longer period of time than I've ever been asked to
11 do.

12 Q You've never have been asked to do one that goes
13 back this far before.

14 A No, there's a first time for everything, I guess.

15 Q Would you agree, sir, the farther you have to go
16 back, the less forensic value the test may have because of
17 the variables and assumptions that you have to make?

18 A No, I would not agree with that statement.

19 Q Well, let's do this, then. If the drinking
20 stopped at 7:30 and there's no drinking, the test is taken
21 at 10:50 the next morning, the blood test, why would you go
22 backwards a little bit more then, instead of stopping at
23 midnight? Let me ask you to assume something else. Assume
24 the average absorption rate occurs and let's say one hour
25 after the drinking, you have from 7:30, then it's absorbed

1 by 8:30. Would you disagree with that, that's within the
2 realm of possibility.

3 A That the last drink is absorbed within an hour?

4 Q Yes.

5 A That's certainly possible, yes.

6 Q So at 8:30, then, the subject, let's say Captain
7 Hazelwood, if he stopped drinking at 7:30, an hour later,
8 he should be approaching his peak --

9 A Depending upon what he had had to drink prior to
10 7:30, yes.

11 Q I want you to refer to your sketch that you drew
12 yesterday, okay?

13 A Surely.

14 Q And that's the time scale. This is the blood
15 alcohol content.

16 A Yes, sir.

17 Q So in other words, if the drinking let's say --
18 this is what -- if it stopped at 7:30, that would be your
19 starting point, is that correct?

20 A No, this would be the starting point where
21 drinking started. In other words, there's no alcohol.

22 Q Okay, no alcohol here. Oh, that's right. And as
23 drinking continues, blood alcohol increases over time. And
24 if -- this instance in the scale, we had hours down here.
25 If you had an hour let's say here and you're approaching --

1 drinking stopped, assuming here, at 7:30, okay?

2 A Right.

3 Q Then, again, as you said, depending on what he had
4 to drink and perhaps what he had to eat certainly, the
5 absorption might be delayed some.

6 A That's correct.

7 Q Well, in any event, since there's no more alcohol
8 being consumed, within let's say 90 minutes by most
9 experts' opinions, all the alcohol is absorbed, you've
10 reached a peak.

11 A Right.

12 Q You don't get any higher than that.

13 A That's correct.

14 Q And that could be 8:30, 9:00 o'clock.

15 A That's possible, yes.

16 Q Then do your calculations, sir, based on
17 retrograde extrapolation, going back let's say from that --
18 you know, using the same blood alcohol test, but carry it
19 back, instead of midnight, carry it back to 9:00 o'clock or
20 8:30 and what do you get?

21 A Could we use 8:30, so we have --

22 Q We'll use whatever figure you feel comfortable
23 with, sir, sure.

24 A If we use the time frame of 8:30 and we go to
25 10:30, this is 14 hours. And if one uses the elimination

1 rate that I use with the 20 percent --

2 Q The same -- no, the same figures --

3 A -- of .008 --

4 Q Right.

5 A Yes -- this would mean an average elimination of
6 .112 percent during that time frame. And if you add that
7 to the 06, it would be about a .17.

8 Q Okay, let me put that back where you drew the
9 pictures yesterday. What was that figure again, by the
10 way?

11 A .17.

12 Q Before I leave this -- well, I think it's on
13 here. Before we leave the bell shaped curve here, you took
14 this figure of .008, came up with a figure of 0.14, right?

15 A Yes, sir.

16 Q Now that of course is on the very, very low end of
17 the scale.

18 A Yes, sir.

19 Q Now since this is a bell shaped curve and you
20 don't know what Captain Hazelwood's elimination rate
21 actually is, the chances are he could be any place in here,
22 right?

23 A That's right.

24 Q And if you want to talk chances, the chances are
25 he'd be more in this lumpy part right here.

1 A That's correct.

2 Q And if you want to take this and say, well,
3 assuming his elimination rate is .008, you could just as
4 well make the same assumption as .03.

5 A That's correct, we did that here.

6 Q Yes. And if you do that, you get a .37, which is
7 extremely intoxicated, isn't it?

8 A Yes, sir.

9 Q Now would you -- could you do the same
10 calculations as you've done here, only put the time 8:30 on
11 here and then put that down? Could you do that? In other
12 words, instead of 12:05, write in 8:30 and then do
13 calculations.

14 A We're talking about 8:30 p.m. the day before --

15 Q Yes.

16 A Is that correct?

17 Q That's correct. I realize it might take some
18 time, so don't feel rushed.

19 A Sure, I wouldn't like to rush.

20 Q Maybe it's kind of a test.

21 A Okay.

22 Q Sir, could you step forward to the board then and
23 put those on? I'd just as soon have it all in your
24 writing. And if you would, after the 12:05, put a.m., and
25 at 8:30, put p.m., so we keep it straight.

1 A Okay.

2 (The witness marks on the board.)

3 THE WITNESS: Why don't I put the 8:30 up here, if
4 you like?

5 BY MR. MADSON: (Resuming)

6 Q Well, wherever you want. I thought -- well, it
7 doesn't make any difference. There's more space between
8 the other two, but I don't care, wherever you feel
9 comfortable. I guess it makes more sense where you wanted
10 it.

11 A Those are the numbers that I got.

12 Q Okay.

13 A Do those agree with yours?

14 Q I didn't do it. I'll take your word for it.

15 A May I sit down?

16 Q Sure, please. Now, sir, if -- one of the things
17 about retrograde extrapolation is that you certainly would
18 feel a lot more confident, wouldn't you, in your results if
19 you had witnesses that would confirm that the person
20 appeared to be intoxicated at the time you get a certain
21 blood alcohol reading?

22 A No, I would not.

23 Q You would not.

24 A No, sir.

25 Q No situation?

1 A No, sir.

2 Q In other words, if you had -- let's take a
3 hypothetical, 8:30 p.m., okay? You came up with a 20,
4 .20. That's pretty intoxicated, isn't it?

5 A Yes, it is.

6 Q Wouldn't you agree, sir, that most people would
7 exhibit their manifest signs of intoxication at that level?

8 A Well, I would not agree with that categorically,
9 Mr. Madson, because I think I testified yesterday -- if I
10 didn't make it clear, I wish to make it clear here today,
11 that visual observation is not the best index of measuring
12 intoxication. And I did testify that I have seen a number
13 of people that are .20 that would not outwardly demonstrate
14 any clinical manifestations of intoxication.

15 I would say this, that certainly more than half
16 the population would. But when you're dealing with one
17 given specific subject, I could not say that.

18 Q By the way, do you happen to know a Dr. Michael
19 Propst from Alaska?

20 A I met Dr. Propst a couple of weeks ago, as a
21 matter of fact.

22 Q Did you consult with him regarding this case?

23 A No.

24 Q Did you consult with him on the subject of
25 alcohol, in general?

1 A No, I haven't consulted with him at all.

2 Q But you met him.

3 A Yes, I met him.

4 Q Was it a chance meeting at an airport or what
5 happened?

6 A Well, I met him when Mr. Cole and I and Ms. Henry
7 visited his office for a short period of time. Oh, I think
8 that was about the first weekend I was here. I think it
9 was on the 23d, -4th, -5th of February.

10 Q Dr. Propst was retained by the State, also, on the
11 same --

12 A It's my understanding that he was.

13 Q Do you feel that he is a competent expert in the
14 field that you are?

15 A You asked me two questions.

16 Q I don't mean as competent, but competent, okay.

17 A In the field of alcohol?

18 Q Yes.

19 A No, sir, I do not.

20 Q You don't feel he is --

21 A No, sir.

22 Q -- competent in that field?

23 A I said as I am.

24 Q As you are.

25 A Yes, sir.

1 Q But would you consider him to be an expert?

2 MR. COLE: Objection. It calls for a legal
3 conclusion.

4 MR. MADSON: I don't think so, Your Honor. I
5 think he can tell who's an expert in a particular field as
6 well as -- probably better than most people.

7 JUDGE JOHNSTONE: Your objection that it calls for
8 a legal conclusion is overruled.

9 BY MR. MADSON: (Resuming)

10 Q Would you say that he is at least an expert?

11 MR. COLE: Objection, lack of foundation.

12 BY MR. MADSON: (Resuming)

13 Q Well, if you don't know whether he is or not, you
14 can certainly say so, Mr. Prouty.

15 A Well, I would like to qualify my answer.

16 JUDGE JOHNSTONE: Just a minute. Just a minute.
17 Where are you going with this?

18 MR. MADSON: Well, Your Honor, what I'm going to
19 do is ask Mr. Prouty if he agrees with a statement made by
20 Dr. Propst.

21 JUDGE JOHNSTONE: That's what I thought.

22 MR. COLE: It's irrelevant.

23 JUDGE JOHNSTONE: Well, you're going to get around
24 to the right one soon enough. It's hearsay --

25 MR. COLE: Hearsay.

1 (General laughter.)

2 MR. MADSON: Well, Your Honor, it is, but he's an
3 expert and relies on hearsay.

4 JUDGE JOHNSTONE: No. But he said he hasn't
5 relied on this. You're not going to get that in, Mr.
6 Madson.

7 BY MR. MADSON: (Resuming)

8 Q So you didn't rely on anything Dr. Propst told you
9 or anything you've read.

10 A That's absolutely correct, yes.

11 Q Anyway, you said that from your personal
12 observation, you have seen people at a 20 that didn't show
13 manifest signs of intoxication.

14 A Yes, a couple of lawyers, as a matter of fact.

15 Q A couple of lawyers.

16 (General laughter.)

17 BY MR. MADSON: (Resuming)

18 Q Well, they're probably pretty good at it. Did you
19 have any for volunteers for your test?

20 A I've had a number of them, yes. I conducted
21 several studies with attorneys and judges, other
22 professional groups.

23 Q Police officers?

24 A Police officers, physicians.

25 Q Let's go up a little bit more. Let's take your

1 average, just your average Joe Blow. At that time, he's
2 got a .31. Now at a .31, would you agree that most people,
3 if not all people, would show obvious signs of intoxication
4 at .31?

5 A I would agree that most people would.

6 Q And there's still a rare individual that would not
7 show any signs at all.

8 A That's correct.

9 Q Well, sir, you mentioned yesterday about statutes
10 in various states that have different levels of blood
11 alcohol as a criteria for intoxication, right?

12 A We address that generally.

13 Q Yes, states have the right to put whatever number
14 they want in there, right?

15 A Certainly, this is by the legislation.

16 Q Now let's assume the state law is that to be -- a
17 person to be guilty of being under the influence, okay,
18 under the influence of operating a motor vehicle, that he
19 has to be noticeably impaired.

20 MR. COLE: Objection. I object to that. That's
21 not what the law is.

22 MR. MADSON: Well, one second and I'll give it to
23 you, word for word.

24 JUDGE JOHNSTONE: Counsel approach the bench,
25 please.

1 (The following was said at the bench.)

2 JUDGE JOHNSTONE: What are you going to get?

3 MR. : (Inaudible) and that's the one in
4 Anchorage.

5 MR. : Well, it's a lot different up
6 there.

7 JUDGE JOHNSTONE: I'm not going to let you comment
8 on what the instruction is going to be or not going to be.

9 (The following was said in open Court.)

10 BY MR. MADSON: (Resuming)

11 Q Well, Mr. Prouty, let me ask you this. You say
12 from your studies and your observations, you did not detect
13 noticeable signs of intoxication in a person let's say with
14 a .20 blood alcohol.

15 A That's correct.

16 Q Is it fair to say that in many situation, you did?

17 A Yes, sir, that is true.

18 Q Is it fair to say that in the majority of
19 situations, you did?

20 A I would say so, more than 50 percent, certainly.

21 Q And is it fair to say that someone else observing
22 the same person at the same time might disagree with you?

23 A Well, I've been disagreed with a lot of times on a
24 lot -- certainly, people have the prerogative to disagree,
25 yes.

1 Q The two of us could look at something and we could
2 have a total disagreement as to my your opinion and your
3 opinion and that would include whether a person was
4 intoxicated or not.

5 A I think I said yesterday it's in the eyes of the
6 beholder.

7 Q So, certainly, getting back to -- let's say now at
8 a .31 blood alcohol, a person has a .31 according to your
9 extrapolation backwards. If you had witnesses that could
10 testify that the person was staggering, falling, doing all
11 these other things that are consistent with intoxication,
12 that would verify your conclusion, wouldn't it, or
13 certainly corroborate it?

14 A Right, the visual observations would corroborate
15 the analytical data, correct.

16 Q On the other hand, at a .31, if nobody -- in other
17 words, when I say nobody -- let me rephrase that. Let's
18 say a number of people observed the individual at that time
19 and detected no signs of intoxication, that would tend to
20 not corroborate your results, would it not?

21 A Well, obviously, that's true, yes.

22 Q So visual observations are important, aren't they,
23 whether they're yours or somebody else's.

24 A They are of some value, but they are not
25 definitive index of intoxication.

1 Q Would you say they're as good a value or less
2 value than your extrapolation backwards for a period of 14
3 hours?

4 A I would say less valuable.

5 Q In other words, you put a great deal of faith in
6 this extrapolation theory.

7 A I do, yes.

8 Q Now are you familiar with Dr. Debowski, sir?

9 A Kurt Debowski, yes, I am.

10 Q Who is he?

11 A Kurt Debowski is the director of the State
12 Chemical Test Board for the State of Oklahoma. He's also
13 on the faculty of the Department of Medicine at the Health
14 Sciences Center at the University of Oklahoma. I've known
15 Dr. --

16 Q You've seen works that he's done and studies he's
17 done, papers.

18 A Oh, much of his work, yes.

19 Q For instance, have you ever read Absorption,
20 Distribution and Elimination of Alcohol, Highway Safety
21 Aspects?

22 A If you would show me the article, I would tell
23 you. I probably have. I've read a great deal of Kurt's
24 work.

25 Q I can't give you the date on this because this

1 copy is blurry, I'm sorry.

2 A Do you know where this was published?

3 Q Studies in Alcohol.

4 A Yes, I think I have reviewed this article some
5 time in the past.

6 Q Would you agree, sir, that Dr. Debowski is one of
7 the foremost authorities on the subject of alcohol in the
8 country?

9 A He's been considered by some, yes. He's very
10 knowledgeable in the field.

11 Q Now would you agree, for instance, with Dr.
12 Debowski if he said that the rate of alcohol absorption
13 after intake is greatly influenced by the nature and
14 concentration of the alcoholic beverage, the food intake
15 and a multitude of other physical, biological,
16 psychological and time factors?

17 A Not in total context, no. I would agree with his
18 former statement. I don't know where his psychological
19 factors interplay.

20 Q I'm sorry, I made a mistake, physiological.

21 A Okay.

22 Q All these signs start to mingle together after
23 awhile. Physiological.

24 A I don't think -- I can't recall, Mr. Madson, right
25 off the top of my head, a significant physiological

1 factor that's going to influence the rate of absorption of
2 alcohol. But the amount consumed, the concentration, the
3 presence of food, yes.

4 Q Did you --

5 A It does vary.

6 Q Did you ever see a study of his that indicated
7 that he found that blood alcohol concentration, that is the
8 last time, from the time the alcohol intake ended until it
9 was absorbed, to the peak, varied from 14 to 138 minutes?

10 A I don't recall it in that context. How many hours
11 is 138 minutes?

12 Q Well, 60 minutes in an hour, so we've got 60 plus.

13 A Over two hours.

14 Q Yes.

15 A I don't remember that particular prophecy or
16 report by him, but it's certainly in keeping with my own
17 observations. It can take that long.

18 Q Now getting back to your curve regarding time and
19 blood alcohol content, the curve you drew here, on the
20 declining phase at least, seems to be relatively straight.

21 A Yes, sir.

22 Q Would you agree that Dr. Debowski has found that
23 there could be a lot of variations in this?

24 A Dr. Debowski has made such reports, yes.

25 Q By the way, do you know how you got to be called

1 as a consultant by the State in this case, who referred you
2 to them?

3 MR. COLE: Objection, relevance.

4 MR. MADSON: Well, I was wondering if it was Dr.
5 Debowski, by any chance.

6 JUDGE JOHNSTONE: I'll let him answer the
7 question.

8 THE WITNESS: I don't know where it all started.
9 Dr. Debowski knows that I am a consultant on this case.

10 BY MR. MADSON: (Resuming)

11 Q But you don't know how it came about was my
12 question, is that what you're saying?

13 A Not totally, no.

14 Q Okay.

15 A I was first contacted by Mr. Cole by phone.

16 Q Would you agree, sir, that if you had two blood
17 tests taken, let's say an hour apart, two hours apart,
18 something like that, that could at least give you
19 substantial more information as to whether or not the
20 person, the subject was in the declining phase of alcohol
21 elimination or still going up, absorbing?

22 A Not in itself, alone, Mr. Madson. It depends on,
23 number one, how the tests were done and, number two, when
24 the tests were done.

25 Q So there's variables even --

1 A You can have two tests and get the same number.

2 Q Well, let's say an hour apart.

3 A That's possible.

4 Q What's possible, the same number?

5 A Yes.

6 Q How about two hours?

7 A That's possible.

8 Q So that doesn't really give you much more
9 information, even if you had two blood tests taken.

10 A It gives more, but it certainly doesn't close all
11 the gaps. The absorption time or the time since the last
12 drink is the most important factor.

13 Q Would you agree with Dr. Debowski in this paper
14 where he wrote, "However, for some purposes, the trend line
15 curve is markedly inappropriate or useless. This is
16 especially true for attempts to engage in retrograde or
17 forward extrapolation of blood or breath alcohol
18 concentrations beyond observed values"?

19 A I wouldn't agree with that, no, because Dr.
20 Debowski, himself, practices the same manipulation
21 frequently.

22 Q You're saying he does one thing, but writes
23 another?

24 A If that's what he has written, yes.

25 Q Well, I'll be glad to show it to you, sir.

1 A I haven't read -- he's referred, Mr. Madson, to
2 information presented above and I haven't read the whole
3 article.

4 Q Okay.

5 A But in substance, he has said that, and as I have
6 testified, I know for a fact that he does this practice
7 himself on occasion, depending upon the predicate that is
8 presented for the case.

9 Q You don't know whether he would agree or disagree
10 with you in a case involving extrapolation back ten to 14
11 hours.

12 MR. COLE: Objection, relevance, hearsay.

13 MR. MADSON: I'll withdraw it.

14 JUDGE JOHNSTONE: Don't answer the question, sir.
15 The question has been withdrawn.

16 THE WITNESS: Yes, sir.

17 BY MR. MADSON: (Resuming)

18 Q I take it it's been some time since you saw this
19 particular paper by Dr. Debowski. You said you remember
20 reading it.

21 A I think I reviewed that paper some time ago for
22 another case that I was working on. I don't trust my
23 recall to remember everything that he wrote in that
24 article.

25 Q Would you agree in his part on summary and

1 conclusions?

2 MR. COLE: Objection. I'm going to object at this
3 point. There's been no showing that this witness relies on
4 the opinions of Dr. Debowski in any way. It's simply
5 hearsay.

6 MR. MADSON: Your Honor, he's read this paper and
7 he's certainly not -- he's indicated Dr. Debowski is a well
8 respected expert in the field. I think I'm certainly
9 entitled to cross examine him to see if other experts as
10 knowledgeable as he is would disagree on the same subject.

11 JUDGE JOHNSTONE: You haven't laid a foundation to
12 get it under 80318. Objection as to hearsay is sustained.

13 BY MR. MADSON: (Resuming)

14 Q Mr. Propst --

15 A Prouty.

16 Q Excuse me, I'm so used to seeing this Dr. Propst
17 here. Mr. Prouty, you know Dr. Debowski personally.

18 A I have known Kurt personally and professionally
19 for more than 25 years.

20 Q And you agree that he is an expert in this field.

21 A Within what context, Mr. Madson? I know the legal
22 definition of an expert.

23 Q Well, would you say he's knowledgeable in the
24 field of alcohol?

25 A He certainly is knowledgeable in the field of

1 alcohol.

2 Q Is he as knowledgeable as you are?

3 A I certainly think that he is.

4 Q And you've read his works.

5 A I have.

6 Q You've read the one I've been referring to here.

7 A I've read extracts of it this morning.

8 Q Have you utilized any of his works, and in
9 particular this one, this paper, in anything that you've
10 used in the past, in this case or others?

11 A Not that I recall. Certainly not that paper.

12 Q Well, is it because you just disagree with him?

13 A I've already testified that I disagree with
14 certain excerpts that you've quoted from the paper.

15 MR. MADSON: Well, Your Honor, I think I should be
16 permitted to ask other excerpts and see if he disagrees or
17 agrees with these. It's another expert in the field who's
18 written substantial articles on it, is knowledgeable.

19 JUDGE JOHNSTONE: You did not establish that the
20 document you have, the pamphlet or the extract from the
21 pamphlet or publication, through this witness, is a
22 reliable authority, by this witness or through any witness,
23 so you haven't laid a proper foundation yet.

24 BY MR. MADSON: (Resuming)

25 Q Well, Mr. Prouty, would you agree that this is a

1 reliable article written by a reliable authority?

2 A Not in its entirety, Mr. Madson, because I
3 disagree, just disagreed with some portions of the paper.

4 Q Does that make it unreliable?

5 A That portion of it does.

6 Q Because you disagree with it.

7 A You're asking me, sir. Yes.

8 Q I know, I'm asking you.

9 A Yes.

10 Q So you don't rely on anything Dr. Debowski has
11 said in this paper because you disagree with it.

12 MR. COLE: Objection, Your Honor. He hasn't even
13 showed him the whole paper.

14 MR. MADSON: He's read it. I'd be glad to show
15 him again.

16 JUDGE JOHNSTONE: Mr. Madson, that's an incorrect
17 characterization of what the witness said. He's read
18 extracts from it. You don't even have a date on it. You
19 don't even know where it came from, Mr. Madson. So the
20 objection's sustained.

21 MR. MADSON: Your Honor, I've shown it to the
22 witness and it is on here, where it comes from and the
23 date, and I'll be glad to ask the witness to take his time
24 and read it, if the Court permits, and then allow me to ask
25 questions.

1 JUDGE JOHNSTONE: I'll permit you to look at
2 Evidence Rule 80318 at this time and perhaps that will
3 assist you somewhat.

4 MR. MADSON: Well, I'm afraid it won't, Your
5 Honor, as long as the witness believes that this isn't
6 reliable, so I'll just go on.

7 JUDGE JOHNSTONE: That's correct. Objection
8 sustained.

9 BY MR. MADSON: (Resuming)

10 Q Now getting to the heart of what I think you said
11 yesterday, Mr. Prouty, you said that alcohol can affect
12 people in various ways and you went into some detail about
13 how that occurs. For example, I think you said it affects
14 -- it's a progressive thing, right?

15 A Yes, sir.

16 Q For instance, the first thing that might be
17 affected, I think you said, might be maybe judgment,
18 decision making.

19 A I think I said inhibitions first.

20 Q Okay. I'm trying to find where I wrote it.

21 A Inhibitions. That's things one normally wouldn't
22 do for moral or legal reasons perhaps, but with enough
23 alcohol, your inhibitions might be released to the point or
24 lessened to the point where you do what you otherwise
25 wouldn't do, is that --

1 Q Yes, sir, I think I'd characterize it as your
2 moral or social breaks. Alcohol has been described as
3 having the effect of unraveling the knitted sleeve of care.

4 A Sounds like Shakespeare.

5 Q That's exactly where it came from.

6 A Then, sir, what's the next thing?

7 Q Reasoning, judgment, problem solving, decision
8 making.

9 A In the studies that you did, how did you relate
10 decision making, judgement, problem solving to observations
11 of people who were under the influence of alcohol?

12 Q Well, part of it would have been from the testing
13 that was done with a number of these subjects as far as
14 using driving simulators where you are presented -- you're
15 familiar with driving simulators. You have a video screen
16 and it's as though you're behind the wheel of a car. And
17 certain situations are presented that you have to evaluate
18 as to how you're going to respond. And they more
19 frequently make poorer evaluations of that traffic
20 situation and make the improper response. Now this is one
21 way of doing it.

22 A That's actually physically controlling a make
23 believe automobile?

24 Q Right.

25 A You're behind the wheel and doing all the

1 steering.

2 A Right, in the four-step phase thing that we
3 discussed yesterday, before you take an action, you first
4 have to make a decision what that action is going to be and
5 that involves reasoning and judgment.

6 Q Can you give us an example, in other words, on
7 your simulator, does something come out of an intersection
8 that requires the driver to make a decision? I don't quite
9 understand.

10 A That's a very good analogy. That's done
11 sometimes.

12 Q So his reaction time could be affected as to
13 whether he decided to step on the brake or not?

14 A Reaction time can be affected, but that's not part
15 of the decision making. That follows.

16 Q What decision making are you talking about?

17 A Well, you just gave a good analogy, that if you're
18 approaching an intersection at a certain speed and a
19 vehicle or possibly a pedestrian appears somewhere adjacent
20 to that intersection, as to whether you slow the car down,
21 whether you speed it up, whether you even recognize that
22 that object is there. The situation has to be evaluated.
23 This information has to be processed by the brain and then
24 a judgment made as to what one is going to do with that
25 situation.

1 Q In other words, you've got to recognize the
2 problem and decide how to avoid it or solve it, right?

3 A Yes, sir.

4 Q And you said this can be observed, right?

5 A I beg your pardon?

6 Q You said this could be observed. You can see this
7 in an individual, his decision making, you know, how he
8 makes the decision and how he doesn't.

9 A No, you don't see his mental process. You see the
10 end result.

11 Q No, but you see what he does.

12 A Sure.

13 Q In other words, if you see the subject reacting
14 too late and he runs over the hypothetical pedestrian, you
15 could say that was poor judgment and poor reasoning, poor
16 decision making.

17 A And combined possibly with poor reaction time,
18 possibly.

19 Q And, certainly, people exercise bad judgment, do
20 they not, when they're sober?

21 A Oh, most definitely.

22 Q So you can't say just because bad judgment is
23 exercised, you automatically are intoxicated.

24 A Oh, unequivocally not.

25 Q Now let's take your situation again, decision

1 making or judgment. Suppose in another situation the
2 subject is not doing it himself. He doesn't have to decide
3 that himself, but he can consult after he -- let's say he's
4 at a .20 blood alcohol, for instance, he's intoxicated.
5 But he, before making that decision, could refer to a sober
6 person and say, "Here's what I think. What do you think
7 about it," and relying on the sober person's judgment in
8 addition. Does that change anything as far as you're
9 concerned in the person's judgment as affected by alcohol?
10 I know that's kind of silly, but --

11 A That is rather convoluted, Mr. Madson. You've
12 asked me is that affecting his judgment, but you just said
13 he didn't make the judgment, someone made it for him. I
14 don't --

15 Q Let's say he made it with the help of a sober
16 individual or at least he had a sober person tell him, "I
17 think it's okay. What you want to do is okay.

18 A I --

19 MR. COLE: Objection.

20 JUDGE JOHNSTONE: Just a minute. Maybe you can
21 rephrase it, Mr. Madson. I'm having a difficult time
22 following it, too.

23 MR. MADSON: You know, I think I probably am, too,
24 but I'll try to do it myself.

25 BY MR. MADSON: (Resuming)

1 Q Judgment is normally an individual thing, is it
2 not?

3 A Surely.

4 Q But oftentimes, would you agree, sir, that when
5 you make a decision or want to make a decision, you might
6 rely on other people's input, in addition to your own? You
7 might ask somebody, "What do you think about me
8 doing . . .," such and such.

9 A Oh, we -- this is done all the time, of course, in
10 like staffing a given situation, get the opinion of other
11 people, weigh those and make a decision yourself as to what
12 you're going to do.

13 Q Yes. So the fact that one is intoxicated then --
14 let's say he's intoxicated, but still relies upon the
15 opinions or judgments of others who are not intoxicated --
16 I guess what -- I'm trying to ask a question, but I don't
17 know what it is.

18 A If you don't know what the question is, I don't
19 know how I can answer it.

20 Q Let me think about it for awhile.

21 A Yes, sir.

22 Q This person, hypothetical person who's
23 intoxicated, who relies upon the hypothetical person who
24 isn't to at least help him make up his mind as to what he
25 should or should not do. Then wouldn't you say that the

1 alcohol factor certainly is not as important in the
2 individual making up his mind or using bad judgment I guess
3 is what I'm trying to say, alcohol by itself?

4 A Mr. Madson, I'm afraid I can't answer the
5 question. If I understand what you're saying -- do you
6 understand?

7 Q Do I?

8 A Yes.

9 Q I think so. Maybe we'll trade places and try
10 that.

11 A This individual --

12 MR. COLE: Judge, I object. You know, this isn't
13 clear enough. He can't answer it.

14 BY MR. MADSON: (Resuming)

15 Q If you can't answer it, sir, I'm not going to
16 prolong it, okay?

17 A I'm afraid I can't, Mr. Madson, I'm sorry.

18 Q But just to sum up, judgment is an individual
19 thing that may or may not be affected by alcohol, right?

20 A It's always affected by alcohol in all people.

21 Q But it may be affected to a very minimal extent or
22 it might be affected to a great extent, right?

23 A I don't know that I can agree with that statement.

24 Q One drink is going to affect your judgment, is
25 that what you're saying?

1 A It certainly can.

2 Q It can. I said --

3 A It certainly can.

4 Q -- will it?

5 A In a lot of people, yes.

6 Q But not in everybody.

7 A No, sir.

8 Q And certainly people can exercise bad judgment or
9 make mistakes without any alcohol.

10 A Oh, certainly, Mr. Madson.

11 Q Did you bring your whole file here with you today?

12 A Yes, this is all I have here.

13 Q Did you --

14 A Oh, you mean everything that I've looked at in
15 this case?

16 Q Yes.

17 A Oh, no.

18 Q Did you lose some of it yesterday?

19 MR. COLE: Objection, irrelevant.

20 MR. MADSON: Well, Your Honor, I think I can get
21 to this idea of judgment and mistake.

22 MR. COLE: May I approach the bench?

23 JUDGE JOHNSTONE: Okay, you want to approach the
24 bench? Come on up.

25 (The following was said at the bench.)

1 MR. MADSON: He lost some of his files out the
2 17th floor window yesterday, last night. They opened the
3 door and the window was open and it blew out. (Inaudible.)

4 JUDGE JOHNSTONE: I don't think it has any
5 probative value.

6 (The following was said in open Court.)

7 JUDGE JOHNSTONE: Objection sustained on
8 relevance.

9 MR. MADSON: That's all I have, Mr. Prouty, thank
10 you.

11 REDIRECT EXAMINATION

12 BY MR. COLE: (Resuming)

13 Q Mr. Prouty, I assume over the years you've
14 testified in a number of cases where a person was impaired
15 by alcohol and was stopped for either drunk driving --
16 driving while under the influence or manslaughter cases or
17 assault cases, is that correct?

18 A Oh, yes.

19 Q In the cases that you testified to and those
20 people that you found to be impaired, did they always make
21 poor judgments on everything they did while they were
22 behind the wheel of a car?

23 A Well, no, that's of course impossible to evaluate,
24 their entire driving experience, if I understand your
25 question, Mr. Cole.

1 Q Well, did they do things right in driving a car?

2 A If they had an accident that they caused, they
3 didn't.

4 Q Not everything right, but the --

5 A Sure.

6 Q Did the fact that there were not two blood tests
7 drawn in this case change any of your conclusions?

8 A No, sir, it didn't.

9 Q I'd like to talk for a minute about Mr. Madson's
10 table. If the person stopped drinking at 8:00 o'clock,
11 rather than 7:30, as Mr. Madson said, and if he had a slice
12 of pizza at around 8:00 o'clock, how would that affect the
13 absorption rate of alcohol?

14 A If he had his last alcohol at 8:00 and around that
15 time had pizza? Well, this would slow down the rate of
16 absorption of alcohol.

17 Q And when you say slow down the rate of absorption,
18 what do you mean?

19 A Well, I think I testified yesterday, Mr. Cole,
20 that as soon as alcohol is taken into the body, absorption
21 begins. That is some of the alcohol will immediately start
22 passing through the wall of the stomach and more
23 particularly through the small intestine. And that's where
24 the major part of the alcohol is absorbed, not from the
25 stomach, but in the upper portion of the gut immediately

1 below the stomach. And in order for the alcohol to be
2 absorbed in the small intestine, it's first got to get out
3 of the stomach. If there is food present in the stomach,
4 then the food physically gets in the way of the alcohol and
5 slows the passage of the alcohol from the stomach into the
6 small intestine, where it is readily absorbed. So it gets
7 in the way of it, it slows it down and takes longer for
8 that alcohol to be absorbed.

9 Q And would you expect, then, a longer period of
10 time, for instance, for a person to peak at his alcohol
11 level?

12 A Well, certainly that would be the end result.

13 Q So this wouldn't -- you're not saying this
14 necessarily, the 8:30 time, was the time that --

15 A No, sir, I think that the predicate in Mr.
16 Madson's question was to assume that all of the alcohol was
17 absorbed at that point.

18 (Tape changed to C-3659)

19 BY MR. COLE: (Resuming)

20 Q Now Mr. Madson asked you a question about Moussy
21 beer. Did you run any experiments that would give the jury
22 an idea about how much -- what would happen if a person had
23 a number of Moussy beers between say 5:00 and 7:00 o'clock
24 and how that would affect his blood alcohol content?

25 A Yes, I did.

1 Q Would you explain that and tell the jury what your
2 results were?

3 A The -- I first calculated what the alcohol content
4 would be, the total amount of alcohol that would be present
5 in one 12-ounce bottle of Moussy beer, assuming that it was
6 in fact .5 percent alcohol. So that would be a maximum
7 amount, unless it was illegally manufactured. And I
8 converted that to grams of alcohol, which is 1.8 grams per
9 12-ounce bottle, total. And then I converted that to fluid
10 ounces of pure ethyl alcohol. And then I took a scenario
11 of a person drinking 16 Moussy beers over an hour and 15 to
12 an hour and 30 minute time period.

13 Q At about what time?

14 A As I recall, it was like 5:00 to 6:30, something.
15 And then that would be a total of over a gallon and a half
16 of beer, but drinking at a rate of one of those 12-ounce
17 bottles every five minutes, and then computed what the
18 blood alcohol concentration would be at any point in time
19 beyond that after 6:30.

20 Q And what was -- did it ever reach .061 by say
21 10:30?

22 A It didn't even approach that, no.

23 Q Now Mr. Madson spoke to you about the different
24 ranges that you set up on the board and he asked you or
25 pointed out the fact that you used .008 as your standard

1 elimination rate.

2 A Yes, sir.

3 Q Are you aware of other forensic toxicologists that
4 use the .008 that you use?

5 A Yes.

6 Q Would you give the jury an idea of who those
7 people are, or persons?

8 A The -- this is the common procedure that's
9 followed by the RCMP throughout Canada.

10 Q RCMP.

11 A Royal Canadian Mounted Police, in their program.
12 This -- using this factor is done also by Dr. A.W. Jones,
13 Dr. Wayne Jones of Sweden.

14 Q Who is Dr. Jones?

15 A Dr. Jones is currently the director of the I think
16 they call it the Alcohol Toxicology Institute. This is a
17 state laboratory in Lubzig, Sweden. I can't spell it, but
18 it's right outside of Stockholm. And he directs the
19 laboratory that performs all of the blood alcohol
20 examinations that are done in the country of Sweden. And
21 he is very extensively published and is internationally
22 recognized as an authority in the field of alcohol.

23 I know for a fact that this is a procedure used by
24 him, which is commensurate with mine, from some of his
25 publications, as well as from having discussed this

1 particular arithmetic manipulation personally. I had
2 occasion to discuss this procedure with him.

3 Q And have you attended workshops where retrograde
4 extrapolation or back calculations have been discussed?

5 A Yes, I have.

6 Q And in the workshops and your conversations with
7 other experts in this field, have the values that you --
8 are the values that you placed up on the board consistent
9 with your discussions with other individuals?

10 A Yes, they are.

11 Q Now Mr. Madson asked you whether or not if you
12 just had urine alone, you could make -- draw a conclusion
13 about the alcohol content in someone's blood, do you
14 remember that?

15 A Yes.

16 Q Do you believe that the urine sample, alone, is of
17 no value?

18 A No, that has not been my testimony.

19 Q Would you explain that again?

20 A The -- I would have to go back and repeat what
21 I've testified to earlier, Your Honor.

22 MR. MADSON: I think it's been asked and
23 answered. My question didn't go to no value at all. I
24 said simply it can't be used to determine, by itself, blood
25 alcohol in an earlier time and he said no, it can't.

1 THE WITNESS: Okay, I think the witness is clear.
2 He said he'd have to repeat it again and --

3 MR. COLE: That's fine. No, I don't have any
4 problem with that. I just wanted to clear up that point.

5 BY MR. COLE: (Resuming)

6 Q Now were you asked to run a scenario, given the
7 number of drinks that have been testified in this case,
8 that would -- to determine whether or not that was possible
9 to get to say a .14 or a .17 at 8:00 o'clock or 12:05 that
10 evening?

11 A Yes, I was.

12 Q And would you explain to the jury what the results
13 of that were?

14 A The -- I used the drinking scenario that was
15 presented by your office that was related to me was in
16 evidence in this case of some five vodka drinks being
17 consumed some time after noontime, in the early afternoon,
18 between there and prior to 8:00 o'clock that evening. I
19 assumed that the vodka was 100 proof or 50 percent by
20 volume. And I assumed that they were ounce and a half
21 drinks, or shots of vodka, and I also assumed that there
22 were two Moussy beers consumed between 8:00 and 8:30 p.m.
23 that evening. And by using the low elimination rate of
24 .008 and by using the various -- lowest distribution factor
25 that has been reported for alcohol in the various

1 compartments of the body, I computed that the blood alcohol
2 concentration under that scenario, using the two very
3 lowest factors, could have been in the neighborhood of a
4 .15, .16 at 12:05 p.m. that evening.

5 Q And that was consistent with what it would have
6 been at 12:05 if you had backtracked.

7 A Yes, sir, in the same ball park.

8 MR. COLE: I have nothing further, Your Honor.

9 JUDGE JOHNSTONE: Mr. Madson, I take it it will
10 take awhile for you on this.

11 MR. MADSON: Your Honor, probably five minutes.

12 THE WITNESS: I'd like to get some more water, if
13 I could.

14 MR. MADSON: Okay.

15 RE-CROSS EXAMINATION

16 BY MR. MADSON: (Resuming)

17 Q Okay, sir, with regard to Mr. Cole's series of
18 questions, he asked about the change from 7:30 to 8:00
19 o'clock and the time period of the last drink, right?

20 A Yes.

21 Q And he also asked about having the slice of
22 pizza. Even making these assumptions and assuming those to
23 be correct, they aren't going to change the absorption peak
24 very much in terms of time, will it? It will delay it
25 some, but in your opinion, not a great deal.

1 A Quantitatively, I really can't say, but it
2 certainly would extent that time, Mr. Madson, possibly 30
3 minutes, possibly longer.

4 Q 30 minutes.

5 A Or longer, possibly.

6 Q So instead of your figures, 8:30, it would be 9:00
7 o'clock.

8 A Or some time shortly after that.

9 Q Is it fair to say, sir, from your knowledge of the
10 field and your expertise, that the retrograde extrapolation
11 topic is one of controversy among experts in this field?

12 A There has been debate, yes.

13 Q In other words, they don't all agree.

14 A I've never seen two experts agree on anything in
15 total.

16 Q And, lastly, Mr. Cole asked you about the number
17 of drinks that coincide or correlate with your hypothesis.
18 You assumed five vodka drinks, one and a half ounces each,
19 and 100 proof, right --

20 A That's correct.

21 Q -- and starting some time in early afternoon.
22 What was that early afternoon time?

23 A As I recall, it was around 1:00 o'clock or 1:30,
24 something like that.

25 Q Well, let me ask you, sir, if your opinion would

1 change if you had to assume that the drinking began at say
2 4:00 or 4:30 and stopped at 7:30, first, that there were
3 three to four vodka drinks and nobody knows whether they
4 were 80 proof or 100 proof or one ounce or ounce and a
5 half. Would that change the figures you came up with?

6 A You said there was only three or four drinks.

7 Q Yes.

8 A Obviously that, in itself, is going to change it.
9 And if we -- you said the assumption would be that it's not
10 a hundred proof -- what would it be -- less than a hundred
11 proof, obviously that would change it.

12 Q How about the time, starting later, instead of
13 1:30?

14 A And finishing when?

15 Q .And finishing at 7:30, between then and 8:00
16 o'clock.

17 A It would interplay some, but not as much as the
18 two earlier changes.

19 Q Obviously, less drinks is going to --

20 A Sure.

21 Q And obviously the -- what we're talking about
22 here, really, isn't it, the amount of total alcohol that's
23 consumed?

24 A Sure, and when.

25 Q And certainly that number of drinks that you just

1 related, assuming Mr. Cole's assumptions that he gave you
2 are correct, okay -- so you come up with a .10, .14 or .15,
3 .16 I think you said --

4 A Yes, it's .15, .16, somewhere in there.

5 Q And that, of course, is taking the absolute lowest
6 of the elimination rates.

7 A That's correct.

8 Q That's well outside the 95 percentile.

9 A That is correct, it is outside the 95 percentile.

10 Q And there's no basis for doing that than there is
11 to take the other extreme, .03.

12 A What basis?

13 Q Well, you just made this assumption. Why can't
14 you --

15 A This was a scenario. It could very well be done
16 with an 03 or an 018. I just didn't have occasion to do
17 that.

18 Q An 018, the average, certainly that number of
19 drinks isn't going to come up to a .25 or a .30 at 8:30 or
20 thereabouts, is it?

21 A Using the average elimination rate of 018, three
22 or four drinks, no, it would not reach a .25.

23 Q Thank you, I don't have any other questions.

24 JUDGE JOHNSTONE: Is that it, Mr. Cole?

25 MR. COLE: I don't have anything.

1 JUDGE JOHNSTONE: May the witness be excused from
2 further participation?

3 MR. COLE: Yes.

4 MR. MADSON: I believe so, Your Honor.

5 JUDGE JOHNSTONE: Okay, you're excused.

6 THE WITNESS: Thank you, Your Honor.

7 JUDGE JOHNSTONE: Mr. Cole?

8 MR. COLE: Your Honor, the last part is just
9 moving into evidence. I believe it's Evidence Number 32,
10 the guard log. We move for the admission of that. I
11 believe that's --

12 MR. MADSON: The what?

13 MR. COLE: The guard log.

14 MR. MADSON: Oh, no objection.

15 (State Exhibit 32 was
16 received in evidence.)

17 MR. COLE: I believe, yesterday, the tape, Number
18 117, the inbound tape, that was provisionally admitted.

19 JUDGE JOHNSTONE: Yes, sir.

20 MR. COLE: The outbound tape.

21 JUDGE JOHNSTONE: That was admitted.

22 MR. COLE: Exhibit Number 151 and 152.

23 JUDGE JOHNSTONE: The outbound tape -- those
24 tapes, for the record, were 21, 117 and 120 and 117 was
25 provisionally admitted.

1 MR. MADSON: With regard to 152 -- 151, Your
2 Honor, there's no objection.

3 JUDGE JOHNSTONE: 151 is admitted, then.

4 (State Exhibit 151 was
5 received in evidence.)

6 MR. MADSON: 152, I would object.

7 JUDGE JOHNSTONE: May I see it, please?

8 MR. MADSON: Yes.

9 JUDGE JOHNSTONE: We'll have to take this up at a
10 break. I don't remember the foundation for this. What
11 witness did you use?

12 MR. COLE: It's been stipulated to foundation.

13 JUDGE JOHNSTONE: Okay, the foundation is it's
14 stipulated to. Relevancy is your objection?

15 MR. MADSON: That's correct.

16 JUDGE JOHNSTONE: Overruled.

17 MR. MADSON: Well, Your Honor, could I make one
18 more? It's relevancy and lack of foundation showing
19 Captain Hazelwood had anything to do with this, sir, that
20 it was ever given to him or he ever saw it.

21 JUDGE JOHNSTONE: Overruled.

22 (State Exhibit 152 was
23 received in evidence.)

24 JUDGE JOHNSTONE: Mr. Cole?

25 MR. COLE: Your Honor, the State would rest at

1 this time.

2 JUDGE JOHNSTONE: That completes the State's
3 evidence in this case, but that does not complete the
4 case. The Defendant will shortly be presenting evidence.
5 In the meantime, we'll have to take up some matters outside
6 of your presence. I don't know how long it will take. I
7 imagine it will take an hour, maybe a little longer, but I
8 trust that you've got some things to do in the jury room.
9 It looks like you've been living there for awhile with the
10 microwaves and everything. Don't discuss the case in any
11 fashion whatsoever. You haven't heard it all and it would
12 be improper for you to start forming or expressing
13 opinions. And we'll call you back as soon as we can and
14 excuse you now.

15 (Whereupon, the jury leaves the courtroom.)

16 JUDGE JOHNSTONE: Why don't we take a break and
17 when we come back, if you have applications, you can make
18 them at that time and we'll hear argument at that time.

19 MR. MADSON: That would be fine.

20 JUDGE JOHNSTONE: We'll stand recessed.

21 THE CLERK: Please rise. This Court stands at
22 recess.

23 (Whereupon, at 10:15 a.m., a recess was taken.)

24 JUDGE JOHNSTONE: You may be seated, thanks. Any
25 applications?

1 (Defendant's Exhibits AS, AT
2 and AU were marked for
3 identification.)

4 MR. MADSON: Yes, Your Honor. Of course, at this
5 stage of the proceedings, it's incumbent upon the Defendant
6 to ask for a motion to -- move to ask the Court to grant a
7 judgment of acquittal, based on the fact that the evidence
8 when viewed in the light most favorable to the State is
9 insufficient to go to the jury. I'm well aware of that
10 very high standard. I'm well aware of the fact that it is
11 no often granted. However, in this case, there certainly
12 is a substantial reason to do so.

13 Looking at the cases in general, and I'm not going
14 to take a great deal of time on this, but I think the real
15 heart of the case comes down to recklessness under the
16 criminal mischief statute and recklessness under the
17 reckless endangerment statute. The recklessness, of
18 course, is the same definition, exactly the same, except
19 criminal mischief requires the added element of knowledge
20 of a risk of damage to property of another in the amount of
21 \$100,000.00 or more, while the misdemeanor charge is simply
22 damage to property or to persons, there still has to be a
23 substantial risk, and I want to center my argument just on
24 that because the Court has certainly heard the testimony
25 and I'm not going to make a final argument here.

1 It's just that from what has been testified to and
2 looking at it even in that light most favorable to the
3 State, what I think we have here is a judgment call at
4 around 11:55 p.m. by Captain Hazelwood. That's where the
5 recklessness has to come in. And I say that because,
6 earlier than that, going through the Narrows, there's been
7 absolutely no testimony that there was any risk, any
8 substantial risk at all.

9 The only evidence on this was Captain Beevers, who
10 said, "I would have been on the bridge. I'm another pair
11 of eyes. I could be there in case something happened." He
12 couldn't define what that case might be or even the chances
13 of that happening and the Court heard no other evidence
14 that going through the Narrows without a captain on the
15 bridge when there's all kinds of other competent people,
16 including the pilot, presented any kind of a risk, let
17 alone a substantial one.

18 Jumping ahead, then, as far as after the
19 grounding, I think the Court has already tentatively, but
20 correctly, ruled that whatever Captain Hazelwood did at
21 that point or didn't do would have no effect, since there
22 was no risk.

23 So that brings us to the middle here and that
24 really is where the State's only argument can lie. And
25 that is whether or not it was reckless for Captain

1 Hazelwood to leave the bridge for a short period of time
2 when Greg Cousins was up there in command of the ship and
3 making the turn that he was instructed to do or agreed to,
4 depending on how you view the evidence. And the argument
5 really is did Captain Hazelwood know -- the State has to
6 prove that based on his knowledge, his experience and all
7 these other factors that he not only should have known,
8 under the negligence statute, but the higher level, that he
9 did in fact know that when he left the bridge, there was a
10 substantial risk that damage to property of \$100,000.00 or
11 more would occur. And there's the heart of the case.

12 And from the evidence that the Court has heard,
13 there is nothing to indicate that there was this
14 substantial risk factor, let alone the knowledge.

15 The State's argument is basically Captain
16 Hazelwood should have known that Kagan was not the most
17 competent helmsman in the world. The evidence, even taken
18 in a light most favorable, would be that he was told that
19 other people said, "Hey, we don't think this guy steers
20 very well," although there's a difference between steering
21 and following a simple command, as was brought out over and
22 over again. And there is no evidence, none at all, that
23 Captain Hazelwood knew that Kagan could not follow a
24 ten-degree right rudder turn.

25 And then we have the next element, which is of

1 course that he'd also have to assume, not only assume, but
2 know, that there's a substantial risk that Greg Cousins
3 wouldn't notice five rudder indicators, that the rudder was
4 actually turning. And that raises expecting the
5 substantial risk to a factor of sheer speculation and
6 nothing but guesswork.

7 So on the issue of recklessness which requires
8 both those charges, I think the State has certainly failed
9 to present sufficient evidence. On the negligent discharge
10 case, it is basically the same, certainly after the
11 grounding because it doesn't matter whether you are
12 criminally negligent or reckless as far as the
13 impossibility of the risk is concerned. The definition of
14 criminal negligence, the Court fully understands, I'm sure,
15 is different in that the only difference is it makes the
16 Defendant in this situation where he should have been aware
17 of something, but wasn't, as opposed to being actually
18 aware of and consciously disregarding the risk. But the
19 risk remains the same, that's the important thing. The
20 risk is always exactly the same, which has to be
21 substantial.

22 After the grounding, of course, there would be no
23 risk because there was no chance of the ship getting off
24 the reef. That's been brought out over and over again.

25 Getting back to the time period, then, of 11:55 to

1 12:00, between then and the grounding, unfortunately,
2 there's no lesser included offense. Otherwise, the State
3 could have a good argument then, at least as to a
4 negligence statement, Captain Hazelwood should have known
5 there was this risk, but didn't. There is no such thing.
6 So that certainly doesn't apply in a lesser included
7 standard, but at least as far as negligent discharge of oil
8 is concerned, the factors that go into whether he would be
9 guilty or not still apply. The only difference is should
10 he have known. Would a reasonable person in his
11 circumstance -- reasonable captain should have known that
12 when he left the bridge, there was this substantial risk
13 that was going to occur because of the two people that were
14 up there to carry it out. And I would say, Your Honor,
15 even under that lower degree of mental state, there was
16 insufficient evidence. So even under the negligent
17 discharge statute, the evidence is insufficient.

18 My main argument, the one I really want to stress
19 here, though, is the one on DWI. This one is truly unique
20 and perhaps all we need now is the theme from Star Wars
21 because the State is asking this judge to boldly go where
22 no judge has ever gone before, and that is to find that
23 there was actual physical control by Captain Hazelwood when
24 he was never near the physical components of the ship, near
25 in the sense that he could actually physically control it.

1 In my research, Your Honor, there has never been
2 any case in the history of this country that I can find
3 where a person -- I'll take it back, there is one and I'll
4 get to that in a minute -- where a person who is -- I'll
5 take it back, there is not -- where a person who is
6 intoxicated is charged with DWI and convicted because he
7 happens to be in the vehicle or has the authority to direct
8 the control of the vehicle, but doesn't have the actual
9 physical control.

10 Now Connelly versus Division of Motor Vehicles,
11 probably the most recent case by our appellate court on the
12 subject, indicates in there -- and I had a copy of it
13 earlier and probably scattered it around -- but, basically,
14 Connelly agrees with the proposition that to operate a
15 motor vehicle -- first of all, it is not defined by
16 statute, it isn't there. So the judges have to -- the
17 appellate court has to do it. And they rule that "operate"
18 certainly means a lot of things. It's in a broader context
19 than driving, for instance. But they did say in there that
20 it involves the exclusive control, physical control,
21 exclusive physical control of a motor vehicle. Now that
22 must mean something when they use the word "exclusive." It
23 also means something when they say "physical," because all
24 the cases who define this mean just that. They say you
25 have to physically control it.

1 Now I have found a couple of cases that
2 distinguish between the authority or the right to control
3 versus the actual physical control and those cases,
4 unfortunately, are in a civil context. But for instance,
5 Farmers Insurance Company versus Ridgeway, 602 Southwest 2d
6 823, distinguishes and says there's a vast difference, or
7 there's a difference between the right to control and
8 having the actual physical control of the vehicle. This
9 has never been done in a criminal context before.

10 Now as I pointed out earlier, there was one case.
11 It's a Tennessee case, Williams versus State, 352 Southwest
12 2d 230. There, a person was convicted of DWI when he
13 actually was sober and gave the keys to a drunk person and
14 sat there in the front seat with him while the drunk drove
15 the car belonging to the person who was sober. The
16 Tennessee court said he could be convicted under an aiding
17 and abetting theory, a theory of accessory, because he
18 assisted in the commission of the crime, willingly
19 participated in it.

20 Now we've just got the converse. The State is
21 claiming that Captain Hazelwood was intoxicated and,
22 therefore, he, for the purpose of the DWI, has to have
23 actual physical control. Now on the other hand, under the
24 recklessness statute, they're saying he didn't have
25 direction and control because he wasn't on the bridge.

1 It's kind of a convoluted argument that doesn't make much
2 sense in the overall context of this case. I assume that
3 they would argue that when he came on the bridge, he then
4 assumed the actual physical control, as well as direction
5 and control.

6 But nowhere, nowhere at all, can I find any case,
7 and I frankly would defy the State to do so, that an
8 intoxicated person can be convicted of DWI when they have
9 the right to control any type of motor vehicle or vessel
10 and, yet, don't physically control it.

11 This is analogous to the situation where an
12 intoxicated person gets into a cab and he wants to go
13 home. He's had too much to drink, gets into a cab and has
14 the absolutely right to control where he's going to go in
15 that cab. He can say, "I want you to go down this street,
16 turn left, take me home." Now certainly the cab driver
17 then is the person in physical control of the vehicle and
18 certainly it doesn't follow that the passenger, who has the
19 right to control the direction of the vehicle, the physical
20 control if you will, can be charged and convicted of DWI.
21 It just doesn't make any sense. And that's exactly the
22 situation that we have here.

23 Captain Hazelwood -- assuming for the sake of
24 argument that he is intoxicated -- when he says to
25 somebody, "Mr. Cousins, when you get down to this point

1 abeam of Busby Island, I'd like you to do the following,"
2 do such and such, and he does that, but he doesn't do it.
3 right. This is like telling the cab driver, "Take me
4 home. Go down that intersection and turn left." and,
5 unfortunately, the sober cab driver doesn't do that, goes
6 right on through the intersection and hits a school bus.
7 Why is it the passenger's fault, even though he had the
8 right to control the direction of the vehicle? The answer
9 is because he didn't have exclusive physical control and I
10 think that's the heart of this whole case. And I simply
11 cannot find any law that gets to the situation as broadly
12 as is defined by all courts and the reason, of course, it's
13 defined broadly is because of the danger involved in people
14 operating motor vehicles because if they're intoxicated.

15 But that danger is substantially lessened, in
16 fact, it's decreased to the point of nonexistent, if the
17 intoxicated person merely can say what they want, but the
18 sober person is the one who physically has to do it.

19 So with that, Your Honor, I think the counts
20 should all be -- the Court should rule that a judgment of
21 acquittal should be granted on all accounts.

22 MR. COLE: Judge, let me just start at the
23 beginning with a number of arguments that Mr. Madson has
24 set out. Essentially, we believe the evidence is
25 overwhelming that the -- that has been presented -- the

1 evidence that has been presented in this case shows, A,
2 that Captain Hazelwood was reckless on the night in
3 question, the 23d and the 24th, he was reckless both as to
4 the risk to the vessel and the oil spill and to the safety
5 of his crew members; and, number two, that he was impaired;
6 and, number three, that he was operating a motor vehicle, a
7 water craft.

8 First, Mr. Madson has appeared to place in issue
9 Count 1 of the indictment, which reads, "Having no right to
10 do so or any reasonable ground to believe he had such a
11 right, he recklessly created a risk of damage to the
12 property of others in an amount exceeding \$100,000.00 by
13 widely dangerous means."

14 The evidence in this case of Captain Hazelwood's
15 reckless actions -- and reckless is defined under our
16 statutes as being aware of and consciously disregarding a
17 substantial and unjustifiable risk. A risk must be a gross
18 deviation from the standard of care that a reasonable
19 person would exercise under similar circumstances, and,
20 three, intoxication -- if a person does not recognize this
21 risk because of intoxication, that's not a defense.

22 What were the risks that are involved? Well, we
23 know, Your Honor, from the testimony that has been given,
24 there is a risk whenever tankers containing oil are
25 operated. There's always a risk of spill. That's why we

1 take steps to make sure and assure for their safe
2 procedure. Now the extent of that risk depends on what
3 actions are taken.

4 In this case, we have evidence of Captain
5 Hazelwood's alcohol use. That use began in the afternoon
6 of the 23d, where he was in a bar from 1:45, 2:00 o'clock,
7 in the evidence in this case, to around 2:45, where he had
8 several drinks. He was again seen in the Pipeline Club
9 from between 4:00 o'clock and 7:00, 7:30, and from there,
10 he went to the Pizza Palace, where he was seen having
11 another vodka drink.

12 Witnesses were questioned. There was at least
13 five drinks that were admitted to. And these were by
14 people who were drinking -- the people that were with him,
15 his crew members, were drinking at the same time.

16 Now in our society, people are aware of the risk
17 of drinking and how it affects your judgment and your
18 decision making.

19 The next thing that showed -- contributed to his
20 reckless conduct in this case is that he -- and I'm jumping
21 out to the Narrows, out past the Narrows, because I agree
22 with Mr. Madson that there has to be some causal connection
23 between reckless activity, bad judgment and the actual risk
24 that is created. In that case, you have Captain Hazelwood
25 facing a potential ice field, which you saw drawn here, and

1 he was obviously aware that that ice field presented a risk
2 because he took steps to avoid it. He didn't go through
3 it; he went around it. It was clear to him that that
4 represented a risk. Now it's equally obvious and all the
5 tanker captains testified that land represents a risk to
6 tanker captains, too. And they both represent risks of
7 oil spills, especially when you're fully laden.

8 Now he placed the vessel in an unsafe and
9 hazardous position. He did it by his actions of turning to
10 a heading of 180 degrees. He placed the vessel on auto
11 pilot. We believe that the evidence could be looked at to,
12 in this case, show -- and there is sufficient evidence and
13 when you take it in light of the evidence that's presented,
14 that putting that vessel on auto pilot contributed to this
15 accident because he left the bridge with it on. And there
16 is substantial disagreement on why this vessel did not turn
17 until 12:01, but it didn't turn until 12:01. And there's a
18 couple of different scenarios, but one of them certainly is
19 that that auto pilot was on and the other two people didn't
20 realize it.

21 Captain Hazelwood, before leaving the bridge,
22 placed the vessel on load program up, essentially going to
23 a full sea speed. He left the bridge. When he left the
24 bridge, he left it with a third mate that was not licensed
25 or experienced. That was the testimony of Bob Beevers. He

1 knew that Kagan was not competent to handle this type of
2 situation. That's a reasonable inference, given the facts
3 that he was given by Kunkel, Stalzer and McCain. They all
4 testified they had conversations about the problems that
5 Mr. Kagan had.

6 He also failed to give adequate instructions. Mr.
7 Madson has made a big deal throughout this whole trial
8 about ten-degree turns, a simple turn, a simple turn. That
9 was never given by Captain Hazelwood. Captain Hazelwood
10 stood over -- the evidence was he didn't go to a chart. He
11 didn't lay a track line. He didn't give a rudder angle.
12 All he said -- he's standing over a radar and he points his
13 finger there and he says, "Turn here someplace and then get
14 me back in the lanes," and then walks away from the
15 situation.

16 All those actions, in addition, show that he was
17 aware of and, yet, he consciously disregarded the risk.
18 There's no doubt he was aware of this risk because he took
19 actions to avoid it. And to say that he's not aware of a
20 risk when he's going at a 180-degree heading and a track
21 line that's taking him right on Bligh Reef is to not give
22 tanker captains any credit at all for the experience that
23 they have. They know exactly what they're facing. He has
24 a radar in front of him. He can see Bligh Reef right in
25 front of him. Now that he consciously disregarded that

1 risk is evident because of the fact that he took these
2 actions that he did, that he placed the vessel on auto
3 pilot, instead of keeping at maneuvering speed -- he placed
4 it on auto pilot, rather than keeping it in helm speed,
5 that he placed the vessel in load program up and that he
6 left the bridge in the first place -- aware of and
7 consciously disregard a substantial and unjustifiable
8 risk. That must be a risk of a gross -- must be of such a
9 nature to constitute a gross deviation.

10 Well, there have been four people that the Court
11 has heard in this case that indicated that this was a gross
12 deviation from the standard of care in leaving the bridge
13 in the predicament that the ship was entering. One of
14 them, Captain Deppe. He said, when asked point blank,
15 "Where are you on your vessel when your ship is right
16 here," he said, "I'm on the bridge," "I'm on the bridge,"
17 "I'm on the bridge." Captain Stalzer: "My personal
18 position is I'm on the bridge all the way out from the Port
19 of Valdez, no matter what." Captain Beevers: "I'm on the
20 bridge. That's where my responsibility is, not only
21 because of the pilotage regs., but also because of the
22 hazardous situation."

23 Finally, the Defendant, himself, in his own
24 statements, both to the troopers -- well, essentially to
25 the troopers and to Mr. Myers were, "I should have been on

1 the bridge." Those admissions indicate that this was a
2 gross deviation from the standard of care that tanker
3 captains would exercise.

4 We're not talking about sailing out in the sea or
5 the ocean. We're talking about a condition where he has
6 been boxed in by ice and the maps, themselves, say, "Use
7 extreme caution and care in these certain circumstances."

8 In addition, Your Honor, as to the evidence of
9 what occurred after the grounding, I think that there are
10 several things that support a finding of recklessness on
11 Captain Hazelwood's failure to sufficiently take steps to
12 agree -- take steps to assure the safety of this vessel.

13 The evidence was presented in this case that, one,
14 he was trying to get it off the reef; number two, that he
15 did not take adequate soundings; number three, that he did
16 not adequately protect the crew. Those -- but the
17 essential reckless conduct in that is attempts to maneuver
18 the vessel, not knowing what was around you.

19 At this point, I think that the Court has ruled
20 fairly and has shown that the fact that he -- the factual
21 impossibility keeps the State from arguing that that is
22 reckless, trying to get it off the reef. However, I do
23 believe the evidence supports the fact that trying to
24 maneuver a vessel backward and forward when you don't know
25 what is on each side of you, when you stand -- when you run

1 the risk of poking more holes on your port side by these
2 maneuvers is a risk that is a gross deviation from the
3 standard of care that other people would exercise in that
4 circumstance.

5 So those are my arguments on Mr. Madson's
6 statement. I can't -- I've heard Mr. Madson on the
7 negligence discharge, say on a number of occasions that
8 it's criminally negligent. I don't believe that's correct;
9 he only has to be negligent. It's a civil standard. That
10 -- it's applied in criminal cases. I could cite the Court
11 a case. I wasn't aware that that was what their argument
12 was, but I can cite the Court a case where the Court of
13 Appeals, in one of the fishing cases that I was involved in
14 -- it was a strict liability -- said that negligence can
15 apply to criminal cases where you're charging the fisherman
16 with going over the line is what I remember the case to
17 be. So there is not a necessity of criminal negligence.
18 The statute, itself, says negligence, not criminal
19 negligence. And then more than sufficient evidence of
20 that, simply by Captain Hazelwood's statements, himself.

21 As to the driving while under the influence,
22 operating a water craft while intoxicated charge, obviously
23 it would have helped me in my argument if Mr. Madson had
24 provided me with these citations prior to coming in here
25 and arguing and I don't have any research for you at this

1 time. However, Your Honor, the evidence is clear as to the
2 incident. The evidence is enough to support the fact that
3 he was intoxicated. So I believe what Mr. Madson is really
4 saying is there's a lack of evidence that he is operating a
5 water craft. There is a special definition for the
6 operation of a water craft. Without being prepared at all,
7 I think the Court can look at what the Coast Guard
8 considers operating a water craft. I think that's a good
9 indication of what people had in mind.

10 In addition to that, Captain Hazelwood was
11 operating this, I believe under the definition, from the
12 time he was at the conn. Driving a vessel of this size is
13 not like driving a motor vehicle in the sense of the
14 physical way that this is maneuvered. The captain, the
15 person who has the conn, is the one who actually is doing
16 the steering -- is doing -- is making the changes in the
17 course. The helmsman merely is nothing more than an
18 extension, or should be, an extension of the steering
19 wheel. It's the captain. It's the person at the conn who
20 has the control of the this -- of the navigation of this
21 vessel.

22 Now Captain Hazelwood had the conn from 11:24,
23 when the pilot was dropped off, until he left the bridge at
24 11:53. In addition, he had the conn when he came back up
25 after 12:11 a.m. until approximately 1:40 p.m. that

1 morning. We would -- without -- and obviously I'm not
2 prepared, when Mr. Madson walks in, but I believe that the
3 Coast Guard -- a common sense reading of the statute and
4 any research that we can do would demonstrate that he was
5 operating a water craft.

6 So I have nothing further.

7 JUDGE JOHNSTONE: Mr. Cole, you cited Latham and
8 Jacobson to support your theory that the Defendant can
9 still be found guilty of operating a motor vehicle, even if
10 the motor vehicle is incapable of being moved, Latham, and
11 the vehicle went into a snow bank. After the vehicle went
12 into the snow bank and the Defendant was unable to
13 extricate it, he decided to turn the engine on, keep warm
14 and drank part of a 12-pack and the Court found that he was
15 -- he could be charged and found guilty of operating a
16 motor vehicle because he had control of it.

17 Does there come a time when that vehicle or water
18 craft becomes so disabled that it no longer can be
19 considered operating a water craft or a motor vehicle? For
20 example, let's take a motor vehicle that's been in an
21 accident and the rear end is crushed in and the vehicle
22 cannot move. There's such damage to it that it could never
23 move without substantial repairs. And after that, the
24 person wants to keep warm, the engine still runs, he has a
25 few drinks. Is that person operating a motor vehicle at

1 that time?

2 MR. COLE: Your Honor, I can't separate that from
3 a situation where a car is so stuck, which is what the
4 Court of Appeals said, even that _____, even if it's
5 stuck and it's impossible for it to come out, I don't see
6 any difference between that and the hypothetical that
7 you've given me. And I would say that in that situation,
8 the Court of Appeals has ruled that we have a very broad
9 definition of what it means to operate a motor vehicle.

10 I believe that the reason is because of the risk.
11 We don't want people claiming -- otherwise people just go
12 the other way with your hypothetical. If they had claimed
13 that because the vehicle was stuck, there was no risk, then
14 the next thing would have been, "Well, I didn't have the
15 keys . . .," "I had the keys in my pocket, so it wasn't a
16 risk." And the Court of Appeals said the legislature
17 wanted to put all this stuff to an end, so they gave a very
18 broad definition of what it means to operate a motor
19 vehicle to stop defenses like that.

20 So I believe that your example is just nothing
21 more than the exact facts that the Court has decided on
22 when the vehicle is in a snow bank.

23 JUDGE JOHNSTONE: In this case, the Exxon Valdez,
24 I think the evidence is undisputed. It was never going to
25 move forward with the capabilities that were available. It

1 had to be floated off and didn't get floated off for
2 several days. And I think it's the testimony, 17,000 tons
3 aground. Is it your theory that that's similar to being
4 stuck in a snow bank, that the captain who is still the
5 captain has the control to turn the engines on, but he
6 cannot move the vehicle under any circumstances is
7 operating the vehicle --

8 MR. COLE: Yes.

9 JUDGE JOHNSTONE: -- the water craft?

10 MR. COLE: Yes.

11 JUDGE JOHNSTONE: And your theory is while he
12 can't move the vessel, he can still discharge oil, he can
13 still transfer oil, he can still issue commands on the
14 vessel, operate the vessel in other ways other than
15 navigating it or moving it across the water.

16 MR. COLE: It says used or capable of being used.

17 JUDGE JOHNSTONE: What does capable of being used
18 mean?

19 MR. COLE: What's capable? It doesn't have to be,
20 but it means capable of being used. It has the potential
21 for being used in that type of situation.

22 JUDGE JOHNSTONE: Well, doesn't the definition say
23 operate a water craft means to navigate or use a vessel
24 used or capable of being used as a means of transportation
25 on water for recreational or commercial purposes? Now is

1 it your interpretation that the term "used" means to be
2 used to unload oil or to do other things on board the ship,
3 such as maintain it, maintenance things, and it doesn't
4 mean used, as a means of transportation?

5 Let me ask you, would you concede that that
6 vessel, after it went aground was no longer capable of
7 being used in the means of transportation at that time?

8 MR. COLE: Was no longer capable of being used?

9 JUDGE JOHNSTONE: As a means of transportation at
10 that time.

11 MR. COLE: No, I would think that it is capable of
12 being used because it was used within a week and a half.

13 JUDGE JOHNSTONE: Okay, the next question I have
14 for you before you sit down is are you aware of any cases
15 at all, contrary to your position that accept the
16 proposition or support your proposition, set for the
17 proposition that if the Defendant is not actually at the
18 control, if he is someplace else, like in the back seat of
19 the car, of his vehicle, that he has got some sort of power
20 of control, or not actually at the wheel, but he can be
21 charged, not under the accomplice theory, but as the
22 principal for DWI?

23 MR. COLE: Judge, no, I'm not aware either way and
24 I apologize for that, but I expected that -- I just haven't
25 done any research. I've got to stress again that I don't

1 believe that anybody meant the same type of control of a
2 water craft when they made a distinction between motor
3 craft and water craft.

4 Let me rephrase that. There's a reason why they
5 put different definitions for operate a water craft and
6 operate a motor vehicle. If they thought -- if they wanted
7 to have them the same, they would have used the same
8 definition. So obviously they intended something a little
9 bit different and they intended something broader in
10 operating a water craft because that is the only way that
11 you take into consideration the realities of the matter of
12 how these vessels are operated. The reality of the
13 situation is that although the helmsman may steer the
14 wheel, he only does it at the command of who's on the conn.

15 JUDGE JOHNSTONE: The watch officer.

16 MR. COLE: The watch officer or the captain,
17 whoever is at the conn.

18 JUDGE JOHNSTONE: Well, what if the captain's not
19 at the conn? What if he's down below. It's not his watch
20 and he's got his four hours or eight hours of rest and he's
21 intoxicated, he goes down and has some drinks, but he's not
22 on watch. The officer of the day is on watch, the first
23 mate, for example. Can the captain be charged with DWI at
24 that stage if that goes aground. Or even if it doesn't go
25 aground, can he be charged with DWI?

1 MR. COLE: If he never comes up on the bridge,
2 goes straight to his room?

3 JUDGE JOHNSTONE: He goes on his sleep or rest and
4 the first mate comes up on his watch and the captain's down
5 below, drinking. Can he be charged for DWI when the first
6 mate is operating the vehicle, the water craft?

7 MR. COLE: Well, I'd have to know whether he was
8 -- under the Coast Guard definition of operating a water
9 craft, there's no doubt that that's correct, that he could
10 be charged. Under the state definition of operating --

11 JUDGE JOHNSTONE: Does it make any difference that
12 he has the power to exercise control at any time as
13 captain?

14 MR. COLE: Can I just --

15 JUDGE JOHNSTONE: Sure, these are difficult
16 questions to understand. I don't know the answers myself
17 to some of them.

18 MR. COLE: Now in your hypothetical, Your Honor,
19 you asked me if he's on the bridge, has control, has the
20 conn, then he goes downstairs, turns it over to another
21 mate and then he starts drinking and while he's drinking
22 down there, the vessel grounds or has an accident, doesn't
23 make any difference.

24 JUDGE JOHNSTONE: Forget the vessel doing
25 anything. It's being operated.

1 MR. COLE: Under that scenario, unless he has some
2 duty to be up on the bridge, if it's just as you say, just
3 a watch, I doubt that under our state law that's
4 operating. I do believe that under the Coast Guard law,
5 that is operating because they're very broad and they say
6 that basically if you come on the vessel and you're
7 intoxicated, then you're DWI. But I don't think those are
8 the facts of our case.

9 Number one, I can distinguish them because Captain
10 Hazelwood had a duty to be on the bridge the whole
11 transit. Number two -- that was by law. Number two, he
12 had a duty to be on there according to the Exxon policy and
13 that was because they were in a hazardous situation that
14 required the master and another watchman. Number three, he
15 was on -- did have the conn from 11:24.

16 And I think -- the other thing that I think the
17 Court needs to remember is that these vessels are different
18 from motor vehicles in that in a motor vehicle, one person
19 can do everything. You can steer and you can push the
20 throttle and that's it. But that's not what happens on a
21 tanker. The throttle is eight feet away and the person
22 that's steering is right there. And these things are set
23 up specifically for more than one person to control the
24 navigation. And the captain or whoever has the conn is the
25 person that controls the operation of that vessel. To

1 argue otherwise, it does not take into account the
2 realistic situation that exists on these tankers.

3 In addition to that, Captain Hazelwood had the
4 conn there and he also had the conn after it was grounded.
5 So at that time, I would distinguish that. But I can
6 understand your concerns.

7 JUDGE JOHNSTONE: Thank you. Mr. Madson, I've got
8 a question for you before you start.

9 MR. MADSON: Sure.

10 JUDGE JOHNSTONE: The evidence that I've heard so
11 far is that Captain Hazelwood was on the conn at some time
12 from the time the vessel left Valdez until the engines were
13 finally shut off. He was in charge of that vessel at some
14 time. And the evidence as I understand it, in the light
15 most favorable to the State, he had five vodkas of unknown
16 amount and the evidence is that his judgment was impaired
17 several stages on the way out. Do we have to focus on the
18 grounding here to determine whether or not he was under the
19 influence while operating a water craft?

20 MR. MADSON: No, no, sir, not at all.

21 JUDGE JOHNSTONE: So at any time if he was on the
22 conn, exercising control as master of that vessel on the
23 conn on the way out from Valdez up until the time the
24 engines were finally shut down, won't that suffice to get
25 by your motion on the judgment of acquittal of operating a

1 water craft while under the influence?

2 MR. MADSON: No, sir, I don't believe so. Let me
3 again -- let's look at the definition of operate a water
4 craft. Let's look at operate an aircraft right above it.
5 That means to use, navigate, pilot or taxi an aircraft in
6 the air space over the state. Under that broad definition,
7 the way the State wants to impose this -- let's assume that
8 somebody charters a plane. He wants to take out -- I want
9 to charter a plane to go out fishing and there's the guy
10 that owns it. And we all get in the plane and it turns out
11 the owner, the guy in control of the plane, let's say, is
12 drunk, but the guy actually piloting is sober. And I tell
13 the guy I want to go fishing, the drunk guy that owns the
14 plane and has the right to control it, and he says, "Where
15 do you want to go," and I say, "You make up your own mind,
16 you're in charge. You go where you think best." And he
17 starts directing the actual pilot, the one in physical
18 control of the plane, to take him various places.

19 Now there's no question under my scenario that the
20 owner/director/controller would be drunk, would be legally
21 intoxicated. But what is he doing that presents a real
22 danger to others when the person actually on the controls
23 is sober. And I think that's what we have to look at.

24 So I don't think it matters at all. I think
25 that's why there has to be actual physical control. In

1 Connelly --

2 JUDGE JOHNSTONE: You mean that Captain Hazelwood
3 would have to have his hands on the steering mechanism --

4 MR. MADSON: Absolutely.

5 JUDGE JOHNSTONE: -- at any time to be convicted
6 of operating a water craft while under the influence.

7 MR. MADSON: Connelly seems to say exclusive
8 control, even of a stationary vehicle. And on this point,
9 the Court raised something that I think it's important to
10 look at Connelly in this context again. The Court
11 mentioned the difference between the vessel not being able
12 to get off the reef, that it's totally not movable. Of
13 course, there's a difference of opinion here because if it
14 was a car, I would agree with the State, it wouldn't
15 matter, but it's not and I think we have to focus on what
16 the Court did, the definition of being capable of being
17 used as a means of transportation on water.

18 Once that vessel was on the reef and stuck there
19 in the manner that you heard, that did not become a means
20 of transportation on water. It was nothing more than a
21 storage tank holding oil and that's all it was good for at
22 that point, until steps were taken to actually refloat it
23 and change it back to a vehicle, the vehicle could be used
24 for transportation.

25 Now Connelly also says something in there and it's

1 kind of overlooked. It's in there and they mention the
2 operability, movability requirement and degree. The
3 Supreme Court says, "Yes, there's no requirement it has to
4 move," but they go on and talk about something called
5 operability. And in that case, they simply said that there
6 was insufficient -- enough evidence of a civil standard
7 that the vehicle was operable when the person was getting
8 into it and going to put the key into it and it was going
9 to go and that's enough for DWI purposes because the
10 evidence showed, at least for a civil standard, that it was
11 operable. So they make a distinction, and I think a
12 correct one, between a vehicle that will operate and one
13 that will simply not -- cannot be moved.

14 Now I think in the context of the Exxon Valdez,
15 you had certainly both; it couldn't be moved and it wasn't
16 even operable as a means of transportation on water.

17 JUDGE JOHNSTONE: You kind of slid away from my
18 question.

19 MR. MADSON: I'm good at that.

20 JUDGE JOHNSTONE: I noticed that. My question is
21 do you believe that he has to actually be on the control
22 wheel, itself, before he could ever be convicted of
23 operating a water craft while under the influence?

24 MR. MADSON: Your Honor, under what I believe to
25 be Jacobson versus State, and Connelly and Latham, where

1 they say exclusive control -- they talk about -- the Court
2 talks about actual physical control -- and every definition
3 that, frankly, I've seen -- and I can assure you, Your
4 Honor, I have torn the library apart, trying to find one
5 case, just one, where a person who did not -- was not the
6 actual driver could be charged with DWI and I told the
7 Court about the only one that I could find. So I would say
8 absolutely, and I'm not trying to avoid the question.

9 JUDGE JOHNSTONE: I've heard several witnesses say
10 that they rarely, if ever, touched the wheel. That's
11 always given to -- I mean not even a mate. An able bodied
12 seaman is the person who normally does that ministerial
13 task.

14 MR. MADSON: Right.

15 JUDGE JOHNSTONE: So the master -- you could be
16 dead drunk on the conn and he never could be charge and
17 convicted of operating a motor vehicle or water craft while
18 intoxicated.

19 MR. MADSON: No, sir, under the Coast Guard, under
20 the federal rules, he certainly could.

21 JUDGE JOHNSTONE: Under state law. Under state
22 law.

23 MR. MADSON: Under state law, he could not. I
24 think the Court also has to look at Title 5 and say why,
25 why is the statute in here, why is this definition, because

1 Title 5, under operating water craft while intoxicated,
2 which is exactly the same thing, says you can only do it
3 for recreational vessels. The legislature clearly intended
4 not to get in this situation where who's operating, who's
5 doing what, because what the statute was designed to do was
6 put the guy that's going out for fishing and water skiing
7 on a Saturday afternoon and has a few beers and gets drunk,
8 put him in the same situation as the guy who goes to the
9 tavern and has two beers and wants to drive home. It puts
10 them both in exactly the same position. But it certainly
11 wasn't designed for this situation of how who actually has
12 physical control. I don't believe the legislature had this
13 in the remotest corner of their minds when this was passed.

14 The other thing I wanted to mention, Your Honor,
15 isn't too critical. But in the context of the State's
16 argument, I found it interesting at least that they put on
17 witnesses, they called witnesses who testified, such as
18 Kagan and Cousins, on auto pilot and other factors, such as
19 the degree of risk, and then turned around and asked the
20 Court, taking the evidence in the light most favorable to
21 the State, "You must disregard their testimony." It's the
22 only way that will support their theory.

23 So with that, I -- unless the Court has some other
24 questions -- I understand the question here about the DWI
25 because, frankly, it's been pondering in my mind for quite

1 awhile and I wish I could give the Court more authority,
2 one way or the other. And, frankly, I've given everything
3 I could find.

4 JUDGE JOHNSTONE: The test in determining whether
5 a motion for judgment of acquittal should be granted is
6 after taking the evidence in the light most favorable to a
7 nonmoving party and all of the favorable inferences from
8 that evidence, this Court feels that reasonable minds could
9 not differ on whether the State has proved its case beyond
10 a reasonable doubt, then the Court should grant a motion
11 for judgment of acquittal.

12 In this case, on Count One of the indictment, as
13 amended, using this test as a guide, the evidence in the
14 light most favorable to the State and the inferences from
15 that evidence in the light most favorable to the State is
16 that the captain, the Defendant, Captain Hazelwood, had
17 numerous or a substantial amount to drink before boarding
18 the vessel, that he knew that his able bodied seaman,
19 Kagan, had some steering difficulties, he knew that the
20 third mate, Gregory Cousins, did not possess the required
21 pilotage, he knew that ice was present in the area, he knew
22 it was night, he knew that Bligh Reef was in the area, he
23 knew that the visibility was poor on occasion. He went
24 below with this knowledge, knowing that he was operating a
25 loaded tanker, some 200 plus thousand tons, containing

1 crude oil. And he went below to do some paper work at this
2 time in what I consider to be dangerous waters, based on
3 the light that is most favorable to the State. Also, the
4 experts have testified that his conduct was reckless and
5 the testimony is that there was, at that time, a risk that
6 Captain Hazelwood knew existed, was aware of and
7 disregarded. The risk was that the vessel might come in
8 contact with the shore,, which Captain Hazelwood knew was a
9 rocky shore, and could result in exactly what happened.

10 Based on this test, viewing the evidence in the
11 light most favorable and the inference from that evidence
12 in a light most favorable to the nonmoving party, the
13 State, reasonable minds could differ on whether the State
14 has proven its case beyond a reasonable doubt. So the
15 motion as to Count One, as amended, is denied.

16 The motion to dismiss Count Two -- correction,
17 Count Two of the information, a misdemeanor, is denied for
18 the same reasons, essentially the same information was
19 available, the same evidence in the light most favorable to
20 the State is present.

21 As to Count Three, the negligent discharge of oil,
22 having dismissed or denied the motion to dismiss on
23 recklessness, negligence being a lesser degree of
24 culpability or state of mind, that motion is also denied.

25 On Count One of the information, the evidence is

1 that the Defendant drank substantial amounts before getting
2 on board the vessel, that he departed the Valdez area as
3 master of the vessel. And the evidence is that the master
4 is in charge of that vessel or should be in charge of that
5 vessel on the way through the Narrows, on out until at
6 least to Bligh Reef. Based on the testimony before me, he
7 was, the Defendant was the only one that had the required
8 pilotage and should have been on that vessel, that he was
9 indeed on the conn on several occasions after having drunk
10 the alcoholic beverages that we've heard. The evidence is
11 that he would have been impaired or otherwise under the
12 influence with that amount of alcohol, based on the last
13 witness' testimony. There's evidence that his judgments
14 were bad on the way out; that's evidence of impairment.
15 His judgments were bad all the way up to trying to remove
16 the vessel from the reef. That shows impairment from the
17 time he left Valdez until the engines were finally shut
18 down.

19 I don't believe that it's necessary that he has to
20 actually manually control the wheel. And from the evidence
21 I've heard, he is in direct control of that vessel and that
22 it would be akin to mutiny for somebody to disregard his
23 commands and he gave commands on the way out. So at some
24 stage, from the time he left to the time the engines were
25 finally shut down, he was, in the light most favorable to

1 the nonmoving party, operating a water craft, as the term
2 is defined, while under the influence. Reasonable minds
3 could differ on that.

4 As for when the vessel was shut down, I'm going to
5 take under advice the question of whether or not the
6 Defendant was still operating a water craft, as the term is
7 defined. My inclination, and it's not a final one, is that
8 he was not, not as the definition is used in our statute.
9 It differs somewhat from a motor vehicle and, in this case,
10 the Exxon Valdez, it's clear, was not capable of being used
11 as means of transportation at that time or capable of
12 navigating at that time. However, that's a yet unresolved
13 question and we may have to resolve that at the time of
14 instructions. But the motions at this time are denied.

15 Are you ready to call your first witness?

16 MR. MADSON: Could we have about five or ten
17 minute, Your Honor?

18 JUDGE JOHNSTONE: Sure. We'll stand recessed.

19 THE CLERK: Please rise. This Court stands at
20 recess.

21 (Whereupon, at 11:30 a.m., a recess is taken.)

22 (Whereupon, the jury enters the courtroom.)

23 THE CLERK: This Court now is in session.

24 JUDGE JOHNSTONE: Defense may call its first
25

1 witness.

2 MR. MADSON: Yes, Your Honor, we call Emily
3 Kaiser. She should be in here in just a second.

4 Whereupon,

5 EMILY KAISER

6 having been called as a witness by Counsel for Defendant,
7 and having been duly sworn by the Clerk, was examined and
8 testified as follows:

9 THE CLERK: Ma'am, would you please state your
10 full name and spell your last name?

11 THE WITNESS: My name is Emily Kaiser,
12 K-a-i-s-e-r.

13 THE CLERK: Your current mailing address, Ma'am?

14 THE WITNESS: Box 246, Valdez.

15 THE CLERK: Your current occupation?

16 THE WITNESS: I own a business in Valdez, shop
17 owner.

18 DIRECT EXAMINATION

19 BY MR. MADSON:

20 Q Mrs. Kaiser -- is it Mrs. or --

21 A Miss.

22 Q Have you ever testified before?

23 A Yes, in Valdez.

24 Q Okay, so you know the procedure here.

25 A Yes.

1 Q Okay. Let me ask you a few questions, Ma'am. And
2 you said you have a business in Valdez. What business is
3 that?

4 A I have a hobby shop and Kelly's Floral.

5 Q And how long have you had those businesses?

6 A 21 years for the Hobby Hut.

7 Q You've lived in Valdez 21 years?

8 A Right.

9 Q Now you remember back on March the 24th -- 23d,
10 excuse me, of this last year, just prior to the infamous
11 oil spill?

12 A Yes, I do.

13 Q Do you recall having a gentleman come into your
14 shop by the name of Hazelwood to make a purchase?

15 A Yes.

16 Q By the way, do you recognize Mr. Hazelwood?

17 A Yes, I do.

18 Q And where is he?

19 A Right here.

20 Q Is that the person you saw on March 23d?

21 A Yes, it is.

22 Q Why don't you just tell the jury basically what
23 happened and the time, as you recall?

24 A Well, I --

25 MR. COLE: Judge, I'm going to object if there's

1 going to be a narration. That's the purpose of asking
2 questions.

3 JUDGE JOHNSTONE: I think that's a proper
4 objection, Mr. Madson, because I don't know what this
5 witness is going to say. The witness may say things that
6 would have legitimate objections.

7 MR. MADSON: I'll put it in a question and answer
8 form, Your Honor.

9 BY MR. MADSON: (Resuming)

10 Q You said you saw Mr. Hazelwood come in there,
11 Ma'am.

12 A Yes.

13 Q Do you recall the time, approximately?

14 A Approximately between 2:00 and 3:00 o'clock.

15 Q And could you, from your records that you gave me
16 last night -- and I'm going to hand you now what's been
17 marked as Exhibit AS and ask you if you've seen that
18 before.

19 A Yes, I have.

20 Q What is that, Ma'am?

21 A It's my telephone bill at the time that I sold Mr.
22 Hazelwood flowers.

23 Q Okay, and is that a true and accurate copy of the
24 bill that you received?

25 A Yes, it is. Yes, I got this from the telephone

1 company.

2 MR. MADSON: Your Honor, I would offer Exhibit AS
3 into evidence at this time.

4 JUDGE JOHNSTONE: Any objection?

5 MR. COLE: Could I just see it? No objection.

6 JUDGE JOHNSTONE: It's admitted.

7 (Defendant's Exhibit AS is
8 received in evidence.)

9 BY MR. MADSON: (Resuming)

10 Q Now according to the telephone records -- first of
11 all, explain why there was a telephone record at all
12 involved in this.

13 A Well, I have a Telenet machine that I put a credit
14 card through --

15 Q We might be getting ahead of ourselves. Did
16 Captain Hazelwood purchase anything there?

17 A Yes, he ordered some flowers to send back to
18 Huntington, Long Island.

19 Q Okay. How was this purchase made?

20 A With a credit card.

21 Q And what do you do when a credit card purchase is
22 made?

23 A I put it into my Telenet machine and I got an
24 approval on the card and then I call the order in to the
25 town that it was ordered to go to.

1 Q And when you say "put it in," you actually
2 physically take the card --

3 A I take the card and put it through the machine.

4 Q Then this somehow is recorded on the -- as a
5 telephone call.

6 A Right.

7 Q What's the purpose of doing, to put that card
8 through there?

9 A So I get credit approval because we -- should I --
10 because sometimes cards are declined.

11 Q And let me ask you, did you observe anything else
12 with regard to the time Captain Hazelwood was in there, any
13 other your documents? Let me show you what's been marked,
14 for instance, Exhibit AT, as in Tom, and ask you --

15 MR. MADSON: Mr. Cole, I think you've seen this
16 already.

17 BY MR. MADSON: (Resuming)

18 Q Please examine this, particularly where the line
19 is kind of dark in through there, and I'm going to ask you,
20 Ma'am, if that refers to the same transaction, as far as
21 you know.

22 A Yes, from my shop.

23 Q And what was the transaction, the purchase, how
24 much?

25 A I don't recall right now, I don't remember.

1 Q And according to those documents you've examined
2 there, your telephone records, what was the time when you
3 actually physically put the card through the machine?

4 A Well, according to this, it was 2:30. 1402 was --
5 was that?

6 Q 1402, that translates into what time? You said
7 between 2:00 and 3:00. Would that be two minutes after
8 2:00 or two minutes after 3:00?

9 A After 2:00.

10 Q So at two minutes after 2:00, that's the time you
11 physically put the card in.

12 A Right.

13 Q Did you have a chance to talk to Captain Hazelwood
14 for any length of time?

15 A Yes, I didn't know who he was at the time and we
16 talked about Huntington, Long Island, because that's where
17 I come from, Mount Vernon.

18 Q And that's why you can recall the conversation.

19 A Yes, because we talked about Long Island.

20 Q Ma'am, have you had experience in observing
21 persons who are under the influence of alcohol?

22 A Yes, I have.

23 Q Based on your personal experience, did you observe
24 anything in Captain Hazelwood's demeanor or the way he
25 walked or his physical actions that indicated he was under

1 the influence?

2 A No, he wasn't, he was sober.

3 Q Thank you, Ma'am, I don't have any other
4 questions.

5 MR. MADSON: But I would offer Exhibit AT into
6 evidence, Your Honor.

7 JUDGE JOHNSTONE: Okay, any objection? AT is the
8 one you said you had seen already.

9 MR. COLE: I object to that, Your Honor, yes.

10 JUDGE JOHNSTONE: And your grounds?

11 MR. COLE: Hearsay.

12 JUDGE JOHNSTONE: May I see the document, Mr.
13 Madson?

14 MR. MADSON: Yes, Your Honor, I'll also show you
15 something else. It's offered as a business record, Your
16 Honor.

17 JUDGE JOHNSTONE: You've already shown this to
18 Mr. --

19 MR. MADSON: Yes, I have. Mr. Cole, is correct,
20 Mr. Madson. We need to have the witness come in. It's an
21 affidavit, but that's not adequate, you need a witness, so
22 objection sustained.

23 MR. MADSON: Your Honor, the witness is in New
24 York.

25 JUDGE JOHNSTONE: I understand that.

1 MR. MADSON: Your Honor, I would ask the Court to
2 inquire if the State has any legitimate objection to the
3 contents of this, other than technical hearsay. In other
4 words, they could be contesting authenticity of this. The
5 question was put to me numerous times in this trial and
6 evidence was admitted and I think I should have the same
7 rights.

8 JUDGE JOHNSTONE: Counsel approach the bench,
9 please.

10 (The following was said at the bench.)

11 JUDGE JOHNSTONE: Let me ask you something, how
12 long have you had knowledge of that exhibit?

13 MR. MADSON: We just go this ourselves
14 (inaudible).

15 JUDGE JOHNSTONE: the objection was hearsay and it
16 was sustained. Do you withdraw --

17 MR. MADSON: (Inaudible.)

18 JUDGE JOHNSTONE: When you made your objection of
19 hearsay, did you know about the affidavit?

20 MR. COLE: Yes, I knew about it.

21 JUDGE JOHNSTONE: Then why did you make it if
22 you're not going to make it known?

23 MR. COLE: No, I object to it at this point.

24 JUDGE JOHNSTONE: You still object to it.

25 MR. COLE: Yes, I'm not saying that (inaudible).

1 MR. MADSON: Your Honor, why don't we just hold
2 and reserve it. If Mr. Cole wants a chance to examine it,
3 I'll be happy to.

4 JUDGE JOHNSTONE: All right.

5 (The following was said in open Court.)

6 JUDGE JOHNSTONE: The objection is still
7 sustained. If you change your mind, Mr. Cole, you can let
8 us know later.

9 MR. COLE: Yes, I will. Your witness, Mr. Cole.
10 Oh, I'm sorry, I thought you had completed.

11 MR. MADSON: I'm just about, one other question.

12 BY MR. MADSON: (Resuming)

13 Q Ms. Kaiser, do you recall the time Captain
14 Hazelwood left your place at all, do you have any
15 recollection of that?

16 A Well, I said some time between 2:00 and 3:00. I
17 didn't look at my watch.

18 Q Okay, thank you very much, no other questions.

19 CROSS EXAMINATION

20 BY MR. COLE:

21 Q Good afternoon, Ms. Kaiser, how are you?

22 A Fine, thank you.

23 Q March 23d, that was how many days before Easter,
24 do you remember?

25 A I forget when Easter was, but it was -- I was

1 sending out a lot of Easter arrangements.

2 JUDGE JOHNSTONE: I can't hear you, you've got to
3 speak up.

4 THE WITNESS: Oh, I'm sorry. I was sending out a
5 lot of Easter arrangements. I don't recall the date.

6 BY MR. COLE: (Resuming)

7 Q How many other flower stores are there in Valdez?

8 A One other shop, but I don't, you know --

9 Q And that was last year, there was one other one.
10 Were you pretty busy at this time?

11 A Yes, I was busy, but not that busy that I don't
12 remember Mr. Hazelwood because of the Long Island deal.

13 Q Okay. Do you remember talking to a police officer
14 shortly after this happened?

15 A I spoke to quite a few people, came in and talked
16 to me about it.

17 Q Have you been shown any of your other statements
18 by Mr. Madson that you gave right after the grounding?

19 A No.

20 Q Do you remember an interview at the Hobby Hut by a
21 Trooper Alexander?

22 A Yes.

23 Q Do you remember him asking you about what time
24 Captain Hazelwood came in or left?

25 A I think everybody asked me that.

1 Q Do you remember telling him you weren't sure.

2 A I said I thought it was between 2:00 and 3:00. I
3 think I told all of them that, that I wasn't positive about
4 the time, but I thought it was between 2:00 and 3:00. I
5 didn't look at my watch.

6 Q Were there other people in the store at that time?

7 A There were quite a few people in the store at the
8 time.

9 Q When you -- do you handle credit cards,
10 Mastercards of American Express cards differently?

11 A No, they all go the same, into my Telenet machine.

12 Q And I assume that after you ran the American
13 Express card through the Telenet, that was about the end of
14 your dealings with Captain Hazelwood.

15 A Yes.

16 Q And he must have left, then, a short time after
17 that.

18 A Probably, yes.

19 Q A couple of minutes, would that be fair to say, a
20 couple of minutes after that?

21 A Yes, a couple of minutes.

22 Q And your store, it's right across the street from
23 the Pipeline Club, is that right?

24 A Yes, and next door to the Shop Rite market.

25 Q What would it take, maybe a minute or two, to walk

1 across the street to the Pipeline Club from your store?

2 A Not very long.

3 Q Less than a minute?

4 A No, it would take more than that, two minutes,
5 three minutes. It's all according to -- there's a lot of
6 traffic on that street.

7 Q But if there isn't any traffic, you could walk
8 right across the street, it's just right across.

9 A Oh, it's directly across, just like Shop Rite's
10 next door or other places. Glacier Bar was next door.

11 Q You could actually see the Pipeline Club from your
12 shop, can't you?

13 A I don't look out the window, I'm too busy.

14 Q But if you wanted to, you could see it.

15 A Well, I'd have to kind of look around the -- go
16 back and look through other windows, not just where I stand
17 to do business.

18 Q You don't know where Captain Hazelwood went after.

19 A I have no idea. If I asked my customers, they
20 would tell me to mind my own business, where they go after
21 they leave my shop.

22 Q I have nothing further.

23 REDIRECT EXAMINATION

24 BY MR. MADSON: (Resuming)

25 Q Well, Ms. Kaiser, you don't know whether Captain

1 Hazelwood stayed around, browsed around your shop for
2 awhile, went into the hobby shop or anything like that?

3 MR. COLE: Objection to leading.

4 JUDGE JOHNSTONE: Objection overruled.

5 THE WITNESS: When he first came in, he did browse
6 around, yes.

7 (Tape changed to C-3660)

8 BY MR. MADSON: (Resuming)

9 Q So it's fair to say you don't know the time he
10 left or how long he might have stayed, where he went?

11 A Well, I would say he was in there at least a half
12 hour or so. I don't know where he went after he left. I
13 never thought to think about it.

14 Q Thank you, Ma'am, I have no more questions.

15 JUDGE JOHNSTONE: You may step down, you're
16 excused.

17 THE WITNESS: Thank you.

18 JUDGE JOHNSTONE: Mr. Madson, would you stop your
19 witness for just a minute. I think she's got one of the
20 exhibits.

21 (General laughter.)

22 JUDGE JOHNSTONE: Call the name of your next
23 witness, please.

24 MR. MADSON: It's Mr. Dudley, Your Honor.

25 Whereupon,

1 CHARLES DUDLEY

2 having been called as a witness by Counsel for Defendant,
3 and having been duly sworn by the Clerk, was examined and
4 testified as follows:

5 THE CLERK: Sir, would you please state your full
6 name and spell your last name?

7 THE WITNESS: My name is Charles Dudley,
8 D-u-d-l-e-y.

9 THE CLERK: And your current mailing address?

10 THE WITNESS: P.O. Box 2325, Valdez.

11 THE CLERK: And your current occupation?

12 THE WITNESS: Right now, I'm working as the
13 operator for the service, Ships Escort Response Vessel
14 System, here in Valdez.

15 THE CLERK: Thank you.

16 THE WITNESS: Yes, sir.

17 DIRECT EXAMINATION

18 BY MR. MADSON:

19 Q Mr. Dudley, exactly what do you do now in Valdez,
20 what's the nature of your job?

21 A My job is to stand by for another major oil spill
22 that may develop in the Port of Valdez as an operator for
23 the deployment of a boom and clean-up operations.

24 Q You've had this job for some time or is this
25 recent employment?

1 A It's recent appointment as of 1 June last year,
2 sir.

3 Q What were you doing back on March 23d of this last
4 year, 1989?

5 A I was employed by American Guard and Alert as a
6 security, which is contracted by Alyeska, and I was the
7 gate guard on that evening, sir.

8 Q Gate guard where?

9 A On the main gate of Alyeska.

10 Q Alyeska Terminal?

11 A Yes, sir.

12 Q Why don't you -- what exactly was the nature of
13 your job and what were you supposed to do?

14 A My job at the main gate was to allow traffic,
15 vehicle traffic, to enter the gate after it's been
16 inspected and had received the proper authority. And
17 pedestrian traffic were routed from the vehicle gate to the
18 security building, through the front entrance of the
19 security building, itself.

20 Q And, sir, why don't you explain, for instance, if
21 crew members of one of the tankers went to town and came
22 back by cab, what would be your procedure, once the cab
23 arrived at the gate, the gate guard?

24 A Once the cab arrived with seamen or any other
25 pedestrians or passengers, they would be stopped at the

1 inbound gate, the gate going into the terminal.

2 Q Is that where you were located, sir?

3 A Yes, sir.

4 Q Okay.

5 A And then I would step behind the cab, inspect the
6 cab as I was walking behind it, going to the rear, and the
7 passengers would then disembark from the vehicle and I
8 would have a legal-sized piece of tablet paper showing the
9 names of all the seamen of all the vessels that had gone
10 ashore. And I would then receive the merchant mariners
11 document from each of the individuals or some --

12 Q You mean the mariners document, is this some kind
13 of a card or something?

14 A Yes, sir, a Z card, a Z card or some other form of
15 identification that had a photograph on the document. I
16 would then check their names off the list verified by the Z
17 card and by the individuals, themselves, and I would return
18 the Z card back to the individual and they would proceed
19 through the security building to where the guard inside
20 would then check any luggage they may have and kind of
21 eyeball the individual for possible -- any type of
22 contraband, whatever it may be.

23 Q What about signs of intoxication, would your job
24 entail any looking for intoxication at all?

25 A Basically what -- yes, sir. What we'd end up

1 doing would be when the individual walked by, he would --
2 if he seemed to be excessively intoxicated, I would then
3 notify the guard inside to kind of eyeball this individual,
4 kind of watch him, for his own safety, not so much as for
5 security, Alyeska itself, but himself. And then I would
6 check the vehicle, inspect the vehicle for any alcoholic
7 beverages that may be hidden inside the cab, itself. But
8 as far as doing a test on an individual, no, sir.

9 Q Was this similar procedure being used on March 23d
10 of last year?

11 A Yes, sir.

12 Q Do you recall an incident about 8:30 that evening
13 with regard to seamen from the Exxon Valdez?

14 A A cab driver dropped off three, I assume three
15 people, to the best of my knowledge, and we went through
16 that procedure, yes, sir.

17 Q And you said you wrote their names on a pad,
18 right?

19 A Yes, sir.

20 Q What happened to that piece of paper?

21 A Well, at the end of the shift, after the vessel
22 has left or at the end of my shift, we then just throw them
23 away.

24 Q Did you take that information and put it anyplace
25 else?

1 A Yes, sir, we put it on a _____ log.

2 MR. MADSON: Excuse me, Your Honor. I have to
3 approach the clerk. I don't have the exhibit number, but
4 it's the deck log or gate log. Do you know where that is?

5 BY MR. MADSON: (Resuming)

6 Q Sir, let me hand you what's been marked as
7 Plaintiff's Exhibit Number 32 and ask you if you could
8 recognize that document.

9 A Yes, sir, it's one of our gate logs.

10 Q Is that your writing on it?

11 A The time is, the 2024, that's my handwriting, yes,
12 sir.

13 Q And 2024 is what time in layman's terms?

14 A That's 24 minutes after 8:00, sir, p.m.

15 Q And at that time, who did you log in?

16 A I logged in a Mr. Roberson, Mr. Koloswik and Mr.
17 Hazelwood, sir.

18 Q Do you know Mr. Hazelwood, personally?

19 A No, sir.

20 Q Would you recognize him if you saw him today?

21 A After the media, yes, sir.

22 Q Do you see him in Court today?

23 A Yes, sir.

24 Q Does that appear to be -- in your opinion, is that
25 the person you saw at that time on March 23d?

1 A Yes, sir.

2 Q Okay. Then, sir, let me ask you this. From your
3 observations of Captain Hazelwood at that time and place,
4 did you observe anything that caused you to believe he may
5 be under the influence of alcohol?

6 A No, sir.

7 Q Explain where you saw him and what you saw him
8 doing, where he had to walk and things like this.

9 A Yes, sir. Like I say, when the cab pulls up and
10 passengers disembark, I'm standing behind the cab. And
11 when the individuals come up to me to hand me their Z
12 cards, we was approximately an arm's length away from one
13 another. They handed me their Z cards. I checked them off
14 and I handed the Z cards back to the individuals. And when
15 they left me, I would direct them toward the main door of
16 the security building and that's where they would have to
17 go through their screening process to get into the
18 terminal.

19 Q How far would this walk be, sir?

20 A I estimate approximately maybe 50 to 65 feet. And
21 when they start off in that direction, I kind of watch
22 where they're going because, at that time, there was a
23 little bit of snow and ice on the ground. And I kind of
24 watched them, made sure none of them slipped or fell. And
25 I did not observe any irregularities in their walk. And at

1 that time, I proceeded with the inspection of the cab.

2 Q And where do the individuals go after they go
3 inside and then come back out? What do they do next?

4 A Once they've gone through the main door and they
5 go outside and exit the security building and go right from
6 there, directly to the cab. The cab is then on the inside
7 of the terminal.

8 Q Inside the gate.

9 A Yes, sir.

10 Q And then the cab then goes to the ship or the
11 berth?

12 A Yes, sir, it goes right to the berth.

13 Q So I take it after they got back in the cab, you
14 did not see Captain Hazelwood after that point.

15 A No, sir.

16 Q Thank you, sir, I don't have any more questions.

17 A Yes, sir.

18 CROSS EXAMINATION

19 BY MR. COLE:

20 Q Mr. Dudley, how long did you work for American
21 Guard and Alert?

22 A Approximately two years, sir.

23 Q And was all that time in Alyeska?

24 A Yes, sir.

25 Q Now as I understand it, American Guard and Alert,

1 they contract with Alyeska to provide security, is that
2 correct?

3 A Yes, sir.

4 Q And so your job is essentially providing security
5 for Alyeska.

6 A At that time, yes, sir.

7 Q You essentially work for Alyeska.

8 A Then, yes, sir.

9 Q Did any of Alyeska's attorneys contact you over
10 this matter?

11 A No, sir.

12 Q You've never had any contact with anyone from
13 Alyeska over this matter?

14 A Not Alyeska, no, sir.

15 Q I think it would be helpful. Would you mind
16 drawing a picture of the guard shack at the entrance for
17 the jury?

18 (The witness draws on the board.)

19 THE WITNESS: Okay, that's the ingress gate, the
20 inbound gate, and a little island. And then we've got the
21 outbound gate and the security building, itself. And
22 you've got the main door here. Then we have a door here.
23 And when the cab pulls up, it would pull up to this area
24 and the passengers would disembark. I would stand at about
25 right here, behind the cab. The individuals came over to

1 here. I took their Z cards from them and checked them off
2 my list and I gave them right back to them. And then they
3 proceeded from this area to this door. When they got about
4 -- when they got past or started on the sidewalk, that's
5 when I no longer concerned myself with them and I went
6 ahead and inspected the cab. And then after I was
7 satisfied the cab was clean, then I opened the gate and let
8 the cab through. And when the individuals were finished
9 being processed through security, they then came out this
10 door and walked directly over to the cab and got in and
11 proceeded down to the berth.

12 BY MR. COLE: (Resuming)

13 Q Would you mind drawing a picture of where the cab
14 first started and make a little arrow in which direction it
15 was going in?

16 A The cab, when it first pulled up --

17 Q Put a box there.

18 A Okay, they pull up right here. And after I've
19 done my inspection with them, then the cab would pull up
20 inside the gate and it would park right about in this area
21 and wait for the pedestrians or the passengers and they
22 would proceed on down to the berth.

23 Q Thank you. You can resume your seat now. Now I
24 assume that as a security guard, one of your jobs is to
25 make sure that unauthorized people don't go into the

1 Alyeska terminal area.

2 A Yes, sir.

3 Q And the reason for that is there's a lot of
4 sensitive equipment, there's oil, and you wouldn't want
5 anybody who was not authorized to get in there and have any
6 problems.

7 A Yes, sir.

8 Q So your primary concern is to make sure that only
9 authorized people are allowed to go beyond the gates there,
10 correct?

11 A Yes, sir.

12 Q And that's why you check people's IDs. When they
13 show you that they have a Z card or some type of
14 identification, then you know that they're authorized to in
15 there, correct?

16 A Yes, sir.

17 Q And if they're not authorized, you turn them back,
18 correct?

19 A Yes, sir.

20 Q Now do you get to know the cab drivers that end up
21 driving back and forth out to the --

22 A Yes, sir.

23 Q You know them all pretty well. In fact, you knew
24 the cab driver in this case, his name was -- a man named
25 Frenchy, right?

1 A Yes, sir.

2 Q Do you talk with the cab drivers when they drive
3 up?

4 A Occasionally, yes, sir.

5 Q Do you become kind of friends with some of them
6 and laugh, maybe tell jokes every so often when they drove
7 up?

8 A Occasionally, yes, sir.

9 Q But you still checked every one of their cars when
10 they came up.

11 A Yes, sir.

12 Q Just because they were a friend of yours -- you
13 would make sure you would check their individual car,
14 right?

15 A Yes, sir.

16 Q And you did that for every vehicle that went
17 through there, correct?

18 A Yes, sir.

19 Q Now after people hand you your card, then you said
20 you watched whether -- you watch them after they hand you
21 their card and while they're walking back to the gate, is
22 that correct?

23 A Yes, sir.

24 Q And you said that you -- if I have your words here
25 correctly, you said that they were -- you're looking for

1 people that are excessively intoxicated, correct?

2 A We look to see -- well, basically what it is, yes,
3 sir.

4 Q And when you say that, do you mean people that are
5 stumbling --

6 A Yes, sir.

7 Q -- or falling down or can't take care of
8 themselves, right?

9 A Yes, sir.

10 Q Because those people -- you're also protecting
11 Alyeska in case those people, later on, say that they
12 slipped and hurt themselves because there were bad
13 conditions and not because they were intoxicated.

14 A Yes, sir.

15 Q But you don't -- didn't make any notations of
16 people who had alcohol on their breath at their time, did
17 you? Did you write that down?

18 A No, sir.

19 Q You took some alcohol training courses to work at
20 your job?

21 A That was after the so-called incident, yes, sir.

22 Q You didn't have any experience in identifying
23 people that had been drinking before that?

24 A No, sir, it was based on your own experiences from
25 your previous livelihood.

1 Q How many people -- you worked there for two
2 years. How many people that were off these ships did you
3 -- how many sailors can you say -- just give us a ball park
4 figure. How many sailors came in and out of the terminal
5 while you were at work there?

6 A Several thousand, I reckon.

7 Q Give the jury an idea of how many of those people
8 were drinking while they were in town and came past you.

9 A You want a figure?

10 Q Yes, to the best of your recollection, you know.

11 A All I can tell you is quite a few.

12 Q In fact, that's one of the reasons why people go
13 into town, is to have alcohol, is that correct, to get a
14 couple of drinks?

15 A I really couldn't give you a straight answer on
16 that, sir. They do drink.

17 Q It sounds like it was almost an everyday occasion
18 for somebody, the people that were members of these
19 tankers, to go in and come back after having been drinking
20 and you noticed it, is that correct?

21 A Yes, sir.

22 Q You said that there were three people in this car
23 with the taxi cab driver?

24 A That's to the best of my recollection, yes, sir.

25 Q You're pretty sure about that there were three

1 people in the car?

2 A That's what I can -- to the best of my memory,
3 yes, sir. There may have been another one, I don't -- at
4 the time, I wasn't sure.

5 Q Did you smell any smoke when you checked any of
6 the people that were in the car, when they came up to you?

7 A No, sir.

8 Q Did you smell any pizza?

9 A Yes, sir.

10 Q Why did you smell pizza?

11 A Because they had pizza with them. One guy who was
12 in the front seat, he was eating his pizza.

13 Q Do you remember who that was?

14 A No, sir.

15 Q Well, you picked out Captain Hazelwood in the
16 courtroom here today. Was Captain Hazelwood the one that
17 was eating the pizza?

18 A No, sir, I don't think so.

19 Q He was sitting someplace else.

20 A I think he was in the back seat of the cab.

21 Q It was a pretty strong smell of pizza, though, in
22 the car, I assume.

23 A Yes, sir.

24 Q After they got to the corner of the door, you
25 didn't watch these people any further.

1 A Once they step foot on the concrete, no, sir.

2 Q And did you watch them when they came back?

3 A When they exited that building, yes, sir, I
4 watched them when they walked to the vehicle again because
5 of the snow and ice that was on the ground. It was for
6 their own safety.

7 Q You checked that car and you're sure that there
8 was no alcohol in that car.

9 A Yes, sir.

10 Q You didn't see any signs of anybody carrying any
11 alcohol when they went in, you're sure about that.

12 A No, sir.

13 Q I have nothing further, thank you.

14 REDIRECT EXAMINATION

15 BY MR. MADSON: (Resuming)

16 Q Mr. Dudley, you indicated, in response to Mr.
17 Cole's question, that Alyeska attorneys had not contacted
18 you about your testimony or what you saw.

19 A Excepting yourself.

20 Q What about police officers?

21 A One -- the state representatives talked to me.
22 One was Mr. Mike Fox and I don't recall the other
23 gentleman's name. But they questioned me about the
24 incident.

25 Q Was that just one time or two separate times?

1 A No, one time.

2 Q Do you recall about when that was?

3 A It was a day or two after the incident, sir.

4 Q Did you tell them essentially what you told the
5 jury here today?

6 A Yes, sir.

7 MR. COLE: Objection, relevance, hearsay.

8 JUDGE JOHNSTONE: Objection overruled under 801,
9 based on your inquiry and on cross examination.

10 BY MR. MADSON: (Resuming)

11 Q Mr. Dudley, from your personal experiences, you've
12 seen people that are under the influence of alcohol, is
13 that correct?

14 A Yes, sir.

15 Q And I think you told the jury, in response to Mr.
16 Cole's questions, that on other occasions, as part of your
17 job, you've seen people that were under the influence or
18 intoxicated going through the gate.

19 A Yes, sir.

20 Q Now did you see any signs at all, let alone
21 excessive signs, of intoxication on the individuals that
22 you saw this night --

23 A No, sir.

24 Q -- and Captain Hazelwood, in particular?

25 A No, sir.

1 Q Thank you, I have no other questions.

2 MR. COLE: I don't have anything.

3 JUDGE JOHNSTONE: Thank you, you're excused.

4 MR. MADSON: We call Michael Craig, Your Honor.

5 Whereupon,

6 MICHAEL E. CRAIG

7 having been called as a witness by Counsel for Defendant,
8 and having been duly sworn by the Clerk, was examined and
9 testified as follows:

10 THE CLERK: Sir, would you please state your full
11 name and spell your last name?

12 THE WITNESS: Michael Edward Craig, C-r-a-i-g.

13 THE CLERK: Your current mailing address?

14 THE WITNESS: Box 1825, Valdez, Alaska.

15 THE CLERK: Your current occupation, sir?

16 THE WITNESS: Security supervisor.

17 THE CLERK: Thank you.

18 DIRECT EXAMINATION

19 BY MR. MADSON:

20 Q Mr. Craig, who do you work for as a security
21 supervisor?

22 A American Guard and Alert, Incorporated.

23 Q And how long have you worked for them?

24 A Approximately seven years.

25 Q And would you explain the job that you have with

1 them, in other words, what the job entails, your
2 responsibilities?

3 A I'm one of the duty sergeants, security
4 supervisor. We work in several different shifts, so I have
5 where we work two weeks on and two weeks off, and I happen
6 to be in charge of, at this point, about six, seven guys in
7 any given day or night.

8 Q This was at the terminal in Valdez?

9 A Yes, sir.

10 Q What do you supposedly -- what's your function,
11 what is your primary purpose being there?

12 A Currently or at that time?

13 Q Well, let's put it at that time. When you say
14 "that time," you're referring to March 23d, I assume.

15 A Yes, sir.

16 Q Okay, let's take March 23d.

17 A Okay, at that time, we had somewhat less amount of
18 security people than there is now and I was also in a
19 patrol supervisory role where I'd take care of all the
20 paper work and that sort of thing. And when that slowed
21 down, then I'd go out into the field and perform patrol
22 duties. Somewhere within the year before, they had
23 eliminated the night patrol slot and that put me there.
24 Generally, other than that, I'd just take care of the paper
25 work, make sure that everything was squared away, decision

1 making, that sort of thing. When something would come up,
2 I'd be the point of contact.

3 Q Let me ask you, sir, if -- as part of your duties,
4 did you watch for or look for intoxicated individuals
5 coming through the terminal?

6 A Yes. The seamen that were going back to the ship
7 had to exit the cabs or however, whatever mode of
8 transportation they arrived in, and come through the
9 security office where we have a magnetometer, which is
10 similar to what you'd have to go through at an airport for
11 metal screening. We have an x-ray machine and that sort of
12 thing. They have to get out of the cab or, again, whatever
13 mode of transportation they have, at the gate, where they
14 are identified or verified on a crew list or ship's
15 manifest that's supplied to them by the -- supplied to us
16 by whatever ship happens to be in. If they can be
17 identified by the guard on the gate and they are on that
18 crew list, then they proceed into the office where,
19 hopefully, someone is there, and I was on that night.

20 Q Calling your attention to that night, were you
21 inside the guard office?

22 A Yes, I was, I was on -- there's an aisle that
23 separates two different areas in the office, one being my
24 desk area, the other being the secretary's desk area. But
25 on that side is where the magnetometer and that sort of

1 thing is controlled. I was at my desk doing paper work at
2 the time when the guard at the gate would radio in and just
3 let you know that a cab was on the way. I looked down the
4 road and, sure enough, there was a cab, so I made my way
5 over to the other side of the counter where I could screen
6 the people that were going to be entering.

7 Q Calling your attention to Exhibit Number 32, do
8 you recognize that document, sir?

9 A Yes, it's one of our standard gate logs.

10 Q And calling your further attention to the time
11 involved here, 2024 I believe it is --

12 A Yes.

13 Q -- okay, what time is that in regular time?

14 A That's 8:24 p.m.

15 Q Did you write this document yourself?

16 A No, that would have been written by a couple of
17 different people. The 2024 entry would have been by our
18 guard, Dudley, that would have been at the gate at the
19 time. I have a log that I have to fill out, also, and at
20 2023, I show that I had screened four seamen on that date.

21 Q Is that the only one you screened at approximately
22 that time?

23 A Yes.

24 Q Okay, could you identify any of those seamen
25 today?

1 A Today.

2 Q Who could you identify?

3 A Captain Hazelwood.

4 Q And you see him in Court today?

5 A Yes.

6 Q Where is he?

7 A He's sitting right here.

8 Q Would you tell the jury, please, what you saw at
9 that time when the four seamen came in? What did you do
10 and what did you see?

11 A Okay, when I was told that there was a cab coming,
12 as I looked down the road, there was one. I walked over to
13 the other side. We have to flip a switch on to get the
14 things activated -- looked out there and there was four --

15 Q The "things," sir --

16 A The magnetometer. It has to be -- if we leave it
17 on all day, you know, we carry weapons and whatnot. Every
18 time you walked by, it would go off. So you only turn it
19 on when you need to use it. I looked out there and there
20 was four people in a cab and just kind of, you know,
21 observed what was going on there. You know, it's March and
22 whatnot, people slip and fall and that sort of thing, so
23 you just want to make sure everything goes all right. One
24 person got out of the back of the cab and gave his
25 identification to the guard.

1 Q When you say the back of the cab, you mean --

2 A It's actually a station wagon type of an affair
3 and there's three separate seats. The rear seat faces out,
4 so he has to climb out the back, as opposed to getting out
5 in what we'd determine a normal fashion. He got out rather
6 quickly, gave his identification to the guard at the gate
7 who identified them and gave his identification back. He
8 then came through and, again, they've been through it many
9 times, so they set all the metal things that they have on
10 the counter and they go through. You talk to them just --
11 not talk, just ask them, "Gee, sir, what ship are you off,"
12 and that sort of thing, just so you can get some kind of a,
13 you know, how they're talking and what's going on with
14 them. Gave him back -- I believe all he had was some kind
15 of pocket knife and he went immediately out. I didn't see
16 anybody else come in and I thought, "Well, gee, I remember
17 there being four people," so I looked out there and there
18 was still a group of three standing out there and they
19 looked to be together, that being why they were taking a
20 little bit longer. They were waiting for each other to
21 come through.

22 So I watched them walk from there over to the
23 front door, until they got out of my vision, came to the
24 front door. One person went back to the restroom area.

25 Q Do you know who that person was?

1 A No, I don't, I don't recall which one it was. One
2 person went back to the restroom area. Two people came
3 over to be screened. If you have any -- one of them had
4 like a backpack sort of a thing. There was a couple of
5 pizzas. There might have been another backpack or bag or
6 some such thing, maybe from a store, I don't remember
7 exactly what all there was. And all that has to be gone
8 through individually. You take the things out, make sure
9 that there's no alcohol, weapons, whatever happens to be --

10 Q You look under the pizza, for instance.

11 A You actually have to open the pizza and look under
12 it, yes. They have been known to bring whatever it is that
13 they like to bring in through that venue.

14 So those two people went through and I searched
15 those things and gave them back all their metal objects and
16 set the other stuff on the side when they went through the
17 magnetometer and they stood there for, you know, a brief
18 period of time, a minute or two, waiting for the other
19 person who came out and he went through the screening
20 procedure just like they did. It was just a normal kind of
21 a thing.

22 Q Let me ask you, sir, one of the things you do, do
23 you look for signs of intoxication in individuals, crew
24 members, for instance?

25 A Yes, at the time, obviously, the policy was not

1 the same as it is now, so, you know, you didn't -- you were
2 as -- now, we scrutinize each individual, and that being
3 anybody, much more than we did then. But even then, you
4 know, you looked for mannerisms, you know, did they have to
5 support themselves, while they were walking through, on the
6 counter, did you smell any alcohol, eyes glazed, these
7 sorts of things. And, basically, you're just looking after
8 their safety, Alyeska's safety and that.

9 Q I take it you weren't there to make arrests and
10 prosecute anybody.

11 A No.

12 Q Okay. With regard to that criteria and
13 specifically with regard to Captain Hazelwood, did you see
14 any of those signs of intoxication at that time on Captain
15 Hazelwood?

16 A No, I didn't.

17 Q And how long would you say you were in his
18 presence, all together?

19 A That whole affair took approximately three
20 minutes, something like that. It wasn't an extraordinarily
21 long period of time. And, of course, like I say, they had
22 to wait for whichever one was in the restroom and that sort
23 of thing, so a couple of minutes, three minutes.

24 Q Had you had experience in observing intoxicated
25 individuals before, sir?

1 A Yes.

2 Q If someone came through there and you believed
3 them to be under the influence or intoxicated, is there a
4 certain procedure you would go through at that point, now
5 talking about back on March 23d?

6 A Talking about March, they would have to be pretty
7 far gone. You know, if they were stumbling and, you know,
8 vomiting, that sort of thing, then we would notify the ship
9 who would provide some people, generally at the supervisor
10 level, to come down and personally tell us, "Yes, we want
11 these people on." Basically, at that time, they're denied
12 access until the ship comes down and says, "Well, we
13 understand the condition that they're in, but we accept
14 responsibility for that." So what we do is we either
15 follow them down or provide transportation down to the
16 ship. They'd have to supply a couple of people from the
17 ship to actually get them over this gangway, which is quite
18 an affair to get over.

19 Q Let me ask about that, sir. On March 23d, were
20 you familiar with the gangway or the access to the Exxon
21 Valdez when it was loaded?

22 A Yes, yes.

23 Q Would you explain what was involved in getting
24 from say the ground onto the vessel, shore to the vessel?

25 A Just to get onto the ship is approximately a

1 quarter-mile walk. You have to walk out on this causeway,
2 get to the end of the causeway, and there's a gangway that
3 goes up. It's kind of like a ladder, step kind of affair,
4 that goes up about two stories or two flights. And they're
5 pretty much straight up.

6 Q When you say straight up, is that like a ladder
7 with -- how would you describe it?

8 A Well, pretty much a ladder with hand rails
9 basically is what it is. And then you get to the top of
10 that and that's where it pivots so that you can put this
11 gangway on the ship so people can get on and off. When the
12 ship goes to leave, then it's on some kind of hydraulic
13 system where it lifts back off and comes back on the berth
14 where it remains stationary until another ship comes on.

15 So if a ship is loaded, they're very low in the
16 water, so when you get up to the top, then you have to go
17 about straight down to the ship because this is up two
18 flights and then you're going to be even lower than that
19 two flights, those steps, to go from the top to the bottom
20 are even more narrow than the ones going up on the top, to
21 the top.

22 Q So you have to go up this walkway, almost
23 vertical, cross over and go down again.

24 A Yes.

25 Q Have you done it yourself?

1 A Many times.

2 Q How would you describe it, as far as the degree of
3 difficulty to do in a sober condition?

4 A You have to concentrate on what you're doing
5 because if you slip, there you go, quite a long ways. You
6 can't just nonchalantly go up the thing. We have people
7 that go up and down every single day and, almost
8 invariably, you'll have some comment about, "Gee, I almost
9 slipped," you know, "I had to use two hands to hold on,"
10 whatever it happens to be. And so you have to make sure
11 that you've got it all together when you go up and down. I
12 mean it's not scary or anything like that, but you just --
13 you have to think about it.

14 Q Requires some care.

15 A Sure.

16 Q Lastly, sir, I think you said that the procedure
17 is different now than it was then?

18 A Sure.

19 Q In what respect.

20 A Well, now, we have breathalyzer instruments that
21 we use.

22 MR. COLE: Objection, relevance.

23 MR. MADSON: I'll withdraw it, Your Honor. No
24 other questions.

25 CROSS EXAMINATION

1 BY MR. COLE:

2 Q Mr. Craig, who do you work for right now?

3 A American Guard and Alert.

4 Q Essentially, you work for Alyeska.

5 A Yes, we're contract security for Alyeska.

6 Q Have you had any conversations with any Alyeska
7 attorneys about this matter?

8 A No.

9 Q Have you spoken to -- reviewed any statements
10 before coming in here?

11 A Other than the ones that I've gotten, I haven't
12 looked at any of them.

13 Q Which ones have you gotten?

14 A Well, shortly after this incident -- of course,
15 being security supervisor on nights, I got a statement
16 form, a standard Alyeska statement form from Alan
17 MacGregor, who was in the cab with the three individuals,
18 and another one from a cab driver who drove them out.

19 Q No, but, yourself, have you reviewed any of your
20 own statements?

21 A Sure, sure.

22 Q Who provided you with those?

23 A Those are, you know, standard forms that I've had
24 since -- once you make them or once they've been made,
25 then, yes, I obviously keep a copy generally of everything

1 that I make, statements that I make or things that I've
2 received. And then when I was supposed to come down here
3 -- and part of the subpoena was that I bring or that I have
4 all of the paper work involved with that night, so I did
5 that.

6 Q Now you went to work at what time that evening?

7 A Approximately -- 1830 is when we go on duty, which
8 is 6:30 at night, so I was there, you know, ten, 15 minutes
9 before that.

10 Q Would you mind, right underneath that diagram,
11 drawing us a diagram of what the inside of the guard shack
12 looks like, just underneath that?

13 A Oh, you want me to draw it, what the guard shack
14 looks like?

15 Q Yes.

16 A It's just a standard little box. There's nothing
17 really inside of it, just sliding doors that, you know,
18 it's just like maybe four or five by six feet, real small.

19 Q Well, maybe you can draw where you were sitting
20 then in the -- let's assume that the box that's up there is
21 the guard shack.

22 A Well, see, there's a difference between the guard
23 shack and the security office. The guard shack is where
24 the gate guard is, where the vehicles come for their
25 ingress, egress. And then there's the security office,

1 exactly where I was.

2 Q Would you draw -- see that box that's up on the
3 diagram?

4 A This box, sure, I can see that.

5 Q Would you assume that that's the security office
6 and draw where you were sitting?

7 A So this being the main door, there is a countertop
8 here and another countertop here. This is my desk in here
9 and that's where I was sitting initially. Then I came
10 around where the magnetometer and x-ray machine is, right
11 here, before you exit the door. So I was actually right at
12 that counter.

13 Q There's a counter between you and the individuals
14 who come in?

15 A Yes, there is.

16 Q How wide is that counter?

17 A Something very similar to, not as wide, as that
18 desk, a couple of feet.

19 Q Now you indicated there were four people that got
20 out of the cab?

21 A Sure. Yes, there was four.

22 Q You're sure there were four?

23 A Positive.

24 Q And which one was Captain Hazelwood?

25 A I don't know. I just know he wasn't the first

1 one.

2 Q Do you know which one he was as far as the other
3 three?

4 A No.

5 Q Well, how do you know Captain Hazelwood was the
6 one that went through there?

7 A The identification process that's conducted at the
8 gate.

9 Q So you don't remember which one of the three he
10 was, whether he was one of the first two or the other
11 person.

12 A True.

13 Q Now when people come into the guard shack, the
14 purpose is to check to make sure that they don't have any
15 contraband, correct?

16 A True.

17 Q Contraband includes weapons and drugs and alcohol,
18 correct?

19 A Yes.

20 Q And that's your primary function in there, isn't
21 that true?

22 A Primarily, yes.

23 Q And back in March of 1989, if someone had a few
24 drinks and you noticed that they had alcohol on their
25 breath, you didn't make any notations about that, did you?

1 A No.

2 Q And if they were a little bit unsteady on their
3 feet, but seemed to be handling themselves okay and were
4 quiet, you didn't make any notations about that, did you?

5 A Well, not exactly. There's a -- if it started to
6 -- if there's a physical indicator, but there wasn't, and
7 the guy still could walk and he was in control of himself
8 and that sort of thing, then what we'd do is the camera
9 monitor room would actually video or monitor this person's
10 progress all the way to the vessel. If he looked like he
11 was having difficulties, we'd send a patrol out there to
12 give him a ride, help him over the gangway and that sort of
13 thing. If not that, then we'd call a patrolman and have
14 them meet this cab or whatever it is at the head of the
15 berth and then he would walk down with them and just make
16 sure that he didn't fall in or whatever it happened to be.

17 Q And the purpose of that was to protect him, that
18 person, and Alyeska --

19 A Sure.

20 Q -- right?

21 A Sure.

22 Q And the only reason you did that is if a person
23 was so intoxicated that he couldn't help himself, right?

24 A Depending on what level, I'd say there's different
25 things that we did. If he was intoxicated to the point

1 where he couldn't help himself, then we actually denied him
2 access. Then when they sent some representatives from the
3 ship and a marine supervisor level person came from
4 Alyeska, they'd make that determination whether or not he
5 could come in. If he could, then we monitored and had
6 somebody with him all the time until he got on the ship.
7 Yes, he could still make the ship, but there's different
8 things that we did.

9 Like I said, if we thought he was intoxicated, but
10 he was still in control of himself, then we would monitor
11 that with cameras and with an individual down there.

12 Q That day when these three individuals came in, did
13 you smell whether any of them had been smoking?

14 A I don't recall.

15 Q How about whether or not there was the smell of
16 pizza in the office.

17 A There was. Well, not in the office, until I
18 opened it up, obviously.

19 Q There was no smell at all until you opened it up.

20 A True.

21 Q Now you were asked at one point, and I understand
22 it to be you've worked here for awhile, you've probably
23 checked a thousand people that go through that gate, is
24 that correct?

25 A Yes. Well, I don't know about a thousand, but

1 quite a few.

2 Q Well, you were asked -- that would be a modest
3 account at one point, would --

4 A That's what I say, a thousand, I don't know. I
5 mean there's been many. They used to average somewhere
6 around 20 or 30 a day or a night shift at that time. And
7 so given many, many days, I think a thousand would be
8 rather modest.

9 Q And you were asked also how many of them you
10 thought had been drinking and you estimated it at 900,, is
11 that correct?

12 MR. MADSON: Excuse me. Asked by whom? Are you
13 referring to the questions I asked?

14 MR. COLE: I'll rephrase the question.

15 BY MR. COLE: (Resuming)

16 Q Out of that number of people, let's say a
17 thousand, about 900 of them had been drinking, when they
18 come back, is that correct?

19 A Well, I would assume so. I don't know that for a
20 fact, but I would assume so. And, of course, this is
21 before then. That wouldn't be related to now.

22 Q But when you say you assume so, did you always see
23 signs of drinking after people came back?

24 A Always -- most of the time. That's why there's
25 not a thousand out of a thousand. It was most of the time,

1 yes. And that being on night shift. Of course, on day
2 shift, it's a different story, but on night shift, it was
3 almost all the people that came through, there was some
4 indication.

5 Q Now after these three individuals left, they went
6 down to Berth 5, is that correct?

7 A Well, they went to Berth 4, then Berth 5, because
8 they had to drop off the individual from the ARCO ship
9 first.

10 Q And you stayed in your security shack.

11 A Security building.

12 Q Security building, is that correct?

13 A Yes.

14 Q You didn't watch them board that evening, did you?

15 A No, again, there was -- you know, I performed a
16 dual role there whereas if, during the day, they had extra
17 patrol. If it had been at night and they'd had their extra
18 patrol like they had several months back, we would have
19 notified that person that a cab had ingress the terminal,
20 was on its way to such and such a point. There would be a
21 guard and, in this case, it would have been me. However,
22 I'm the supervisor, also, so I had other things to do in
23 the office. That person would meet them at whatever berth
24 it happens to be. They'd follow the cab to that berth.
25 They'd monitor the exiting of the cab. They'd watch the

1 people walk down the berths and that sort of thing. That
2 was something that we did very regularly.

3 Q On March 23d, at about 8:30, you didn't watch
4 these three people get on the Exxon Valdez.

5 A No.

6 Q And there's handrails going up.

7 A Yes, and handrails going down.

8 Q And handrails going down. So if a person wanted
9 to be careful going up these things, he could just put both
10 hands on the handrails, right, and walk up the stairs.

11 A Right, I don't know anybody who doesn't.

12 Q But you don't know what these individuals did that
13 night because you didn't see them.

14 A Certainly didn't.

15 Q Now when the three individuals walked into -- from
16 the Exxon Valdez walked in, you searched all their baggage,
17 correct?

18 A Yes.

19 Q And you were sure that there as absolutely no
20 alcohol in those bags when you let them in.

21 A Yes.

22 Q And you searched every one of the three
23 individuals to make sure they didn't have any alcohol on
24 their person, correct?

25 A No, the individuals are not searched. Just they

1 proceed through a magnetometer and if there's some
2 indication that they may have some metal objects or that
3 sort of thing, the machine activates an alarm signal. Then
4 you have them step back through. They have to clear all
5 their pockets. If you still can't determine that, we have
6 a hand-held pocket scanner which we would then go over the
7 individual with from head to toe and be satisfied that
8 whatever is setting it off is something that's not --

9 Q So you just take their word that they don't have
10 any alcohol on their -- under their jacket or something
11 like that, correct?

12 A True.

13 Q And that would mean that you didn't -- so you
14 didn't actually have to physically check any of these three
15 individuals, correct?

16 A That's true, that's correct.

17 Q And you always stayed behind the counter when they
18 were in the room.

19 A That's correct.

20 Q I have nothing further.

21 REDIRECT EXAMINATION

22 BY MR. MADSON: (Resuming)

23 Q Mr. Craig, were you asked any questions by a
24 representative of the State prior to today?

25 A Yes.

1 Q Who was that, sir, do you know?

2 A Well, there was actually a couple of different
3 guys. One's name was I think McGhee, John McGhee, and then
4 there was Rolly Port. I was interviewed by both.

5 Q At separate times or at the same time?

6 A Separate times.

7 Q Do you recall when that was?

8 A I don't recall the specific dates.

9 Q You indicated that there is a camera monitoring
10 system available and it could be turned on to monitor or
11 record an individual.

12 A Yes, there's a guard that sits at that location 24
13 hours a day. If he, on his own, while he's viewing this,
14 decides that there's some indicator there that something
15 might be amiss or whatever, then he automatically will
16 begin to record that. We also have a little code that we
17 use. If I want him to record it, then we make some kind of
18 arrangement for that to be done. He -- there was nothing
19 recorded that night because there was nothing specific --

20 Q I assume there was a guard on duty at the monitor.

21 A Yes, there was.

22 Q If I understand correctly, the cameras are
23 monitoring, that is that he's got cameras -- not cameras,
24 but screens he can look at.

25 A Yes.

1 Q But it isn't be recorded, unless he pushes a
2 button to record.

3 A Unless he actually activates it, yes.

4 Q And nothing was done this evening with regard to
5 recording anything.

6 A No, no.

7 Q You indicated also that you are familiar with the
8 signs of intoxication from the number of people that were
9 going through there at that time that had been drinking,
10 right?

11 A Yes.

12 Q And it's your testimony, then, you did not see any
13 familiar signs on Captain Hazelwood.

14 A Nothing whatsoever.

15 Q Thank you, sir, no other questions.

16 RE CROSS EXAMINATION

17 BY MR. COLE: (Resuming)

18 Q How can you tell whether or not you saw signs of
19 intoxication if you don't know which one of the three was
20 Captain Hazelwood?

21 A Because it really doesn't matter who the person's
22 name is. You have individuals that you look at. They
23 don't mean anything to me, as far as what their names are.
24 I just look at them as individuals.

25 Q Well, you don't even remember which one was

1 Captain Hazelwood, right?

2 A True.

3 Q So how can you say whether or not he actually
4 exhibited signs of intoxication if you don't know which one
5 of the three it was?

6 A Because if I pick up any initial sign or
7 indicator, then it keys me to that specific person, I spend
8 a little more time. I might listen to some conversation
9 with him and that sort of thing, so that I am comfortable
10 with letting him in because that's part of what I do.

11 Q Well, are you sure that you didn't -- did you
12 smell any alcohol at all on any of these individuals?

13 A None.

14 Q None whatsoever. You got right up next to them.

15 A No, I didn't get right up next to them.

16 Q Well, did you check to see whether they had
17 alcohol on their breath when they walked in?

18 A It depends on what you mean by, "Did you
19 check . . .,"

20 Q Well, were you looking for signs of --

21 A We're not -- when they come into the security
22 office, we don't go up to each individual and get within
23 however many inches that you might. I mean it's a normal
24 kind of a thing where these people walk in. All they're
25 trying to do is to go to the ship. And in that normal

1 progression from the time they walk in to the time they
2 walk out, if you haven't noticed anything, if there's no
3 indicator, then there isn't. Now the story is different
4 these days. If you want to use that, it's a different
5 thing. You have to get in much closer to them to determine
6 that.

7 Q This was nothing more than a routine check, then,
8 that evening.

9 A True.

10 Q And you didn't handle it any different than a
11 routine check.

12 A No.

13 Q Thank you, I have nothing further.

14 MR. MADSON: No other questions, Your Honor.

15 JUDGE JOHNSTONE: You're excused. You may call
16 your next witness.

17 MR. MADSON: May we approach the bench, Your
18 Honor?

19 JUDGE JOHNSTONE: Yes, sir.

20 (The following was said at the bench.)

21 MR. MADSON: That's the last witness we intend to
22 call today, that we had arrangements for.

23 JUDGE JOHNSTONE: Do you have any witnesses
24 available?

25 MR. MADSON: No, none, some experts, but that will

1 be tomorrow, tomorrow morning.

2 JUDGE JOHNSTONE: You have no witnesses available
3 that are here?

4 MR. MADSON: Well, let me -- can we take a few
5 minutes, so I can call and see.

6 JUDGE JOHNSTONE: I've got no problem with
7 recessing today. (Inaudible.) We'll just recess and
8 you'll have enough tomorrow.

9 MR. MADSON: Absolutely, we'll start tomorrow
10 morning.

11 JUDGE JOHNSTONE: Okay.

12 (The following was said in open Court.)

13 JUDGE JOHNSTONE: We're going to recess now. We
14 don't have a witness immediately available and there's no
15 sense in waiting another 15 or 20 minutes and not have him
16 here anyway. So we'll resume tomorrow morning at 8:30.
17 Don't discuss the case among yourselves or with any other
18 person. Remember my instructions to avoid media sources.
19 You're probably getting tired of hearing this, but it's
20 required by law. I'm sure you remember, but in the event
21 that you might forget it, I'm going to constantly remind
22 you. Don't form or express any opinions. I'll see you
23 back tomorrow morning. Be safe.

24 (Whereupon, the jury leaves the courtroom.)

25 JUDGE JOHNSTONE: May I get an estimate from you

1 of the length of time of the Defense case?

2 MR. MADSON: Yes, Your Honor. Certainly, we're
3 going to go through all this week and I would anticipate
4 all of next week. We'd be very lucky if we could finish a
5 week from this Friday.

6 JUDGE JOHNSTONE: So at least through next week
7 and probably longer than that.

8 MR. MADSON: Yes, we're going to try our best to
9 finish next week.

10 JUDGE JOHNSTONE: I'm not by any means pushing
11 you. I'm just trying to get an estimate for my own
12 calendar. Okay, anything we can do now before we recess?

13 MR. MADSON: I don't believe so.

14 JUDGE JOHNSTONE: Okay, if you have something to
15 take up tomorrow, come on in at 8:15 and notify opposing
16 counsel.

17 THE CLERK: Please rise. This Court stands
18 recessed.

19 (Whereupon, at 12:50 p.m., Court was recessed.)

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1 SUPERIOR COURT

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) Case No. 3ANS89-7217

3 STATE OF ALASKA

) Case No. 3ANS89-7218

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I do hereby certify that the foregoing transcript was typed by me and that said transcript is a true record of the recorded proceedings to the best of my ability.

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Doris A. Cutler

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DORIS A. CUTLER

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STATE OF ALASKA

IN THE SUPERIOR COURT AT ANCHORAGE

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In the Matter of:	:	
	:	
STATE OF ALASKA	:	Case No. 3ANS89-7217
	:	
versus	:	Case No. 3ANS89-7218
	:	
JOSEPH J. HAZELWOOD	:	
-----	:	

Anchorage, Alaska

March 8, 1990

The above-entitled matter came on for trial by jury before the Honorable Karl S. Johnstone, commencing at 8:32 a.m. on March 8, 1990. This transcript was prepared from tapes recorded by the Court.

APPEARANCES:

On behalf of the State:

BRENT COLE, Esq.

Assistant District Attorneys

On behalf of the Defendant:

DICK L. MADSON, Esq.

MICHAEL CHALOS, Esq.

THOMAS RUSSO, Esq.

C O N T E N T S

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WITNESSES:

DEFENDANT'S

DIRECT CROSS REDIRECT RECROSS

Edward F. Hoffman

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44

Peter Shizume

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125

145

150

150

Joseph Winer

151

E X H I B I T S

	<u>DEFENDANT'S</u>	<u>IDENTIFICATION</u>	<u>IN EVIDENCE</u>
3	AN		173
4	AV	17	165
5	AW	17	168
6	AX	17	168
7	AY	17	165
8	AZ	29	33
9	BA	29	31
10	BB	43	
11	BC	97	101
12	BD	97	103
13	BE	103	110
14	BF	110	117
15	BG	110	117
16	BH	110	117
17	BI	110	117
18	BJ	110	117
19	BK	114	117
20	BL	114	117
21	BM	118	123
22	BN	118	123
23	BO	118	123
24	BP	118	123
25	BQ	118	123

EXHIBITS (Cont'd)

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DEFENDANT'S

IDENTIFICATION

IN EVIDENCE

BR

118

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BS

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BT

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184

BU

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BV

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BW

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P R O C E E D I N G S

1
2 THE COURT: What can I do for you?

3 MR. RUSSO: Your Honor, an issue has come up
4 which is not directly related to the criminal action, but
5 because it's occurring in your courtroom, I thought that
6 you should be apprised of it, and perhaps you can be of
7 some assistance to us in resolving it.

8 A process server is present in the courtroom this
9 morning, and he was waiting for us when we arrived, and he
10 has a shopping bag full of complaints and summonses in
11 which he alleges that Captain Hazelwood is the Defendant,
12 and he intends to serve process on Captain Hazelwood in
13 this courtroom this morning on those suits. How many suits
14 are there?

15 MR. : There are 66 civil summonses
16 (inaudible).

17 MR. RUSSO: All right. Sixty-six summons and
18 complaints in a Cordova suit.

19 Your Honor, I think that, first of all, it's
20 inappropriate for any process server to come into any court
21 of law and serve personal service on any Defendant, under
22 any circumstances. But secondly, according to the Alaska
23 statutes, specifically Section 12.70.230, Captain Hazelwood
24 is immune from personal service while he's in this state
25 appearing on this case.

1 Captain Hazelwood came into the state voluntarily
2 as a result of waiving extradition in New York and, as
3 such, under that statute, he is absolutely immune from any
4 service at this time. And, accordingly, I think because
5 this process server happens to be in this courtroom that
6 the Court should instruct him to leave the courtroom and
7 furthermore, take notice of the fact that Captain
8 Hazelwood, while he's appearing in this action, is immune
9 from personal service.

10 There may be other ways that Captain Hazelwood
11 can be legitimately served, and certainly we have answered
12 some summons and complaints on these civil actions where we
13 believed he was personally served properly, pursuant to the
14 law, but this is not the way to do it, and I don't think
15 this is an appropriate time and place to do it.

16 THE COURT: Why did you decide to come in the
17 court to serve Captain Hazelwood when you could have served
18 him outside of court, or downstairs, and any time when he
19 comes in the building?

20 MR. : Your Honor, I wasn't sure what
21 times the captain would be able to _____ in the
22 courtroom, whether doors would be locked, et cetera. I
23 wanted to effect service as quickly as possible under
24 instructions from my client, William Bixby of Valdez. I
25 wanted to do so without attendant publicity, and without

1 the jury being present and before any proceedings started
2 here. That's why I got here early.

3 THE COURT: Well, you didn't achieve your goal,
4 if you try to do it without publicity, by coming into court
5 here in front of cameras and everybody else and trying to
6 serve the captain, so you can step outside and serve him
7 when he leaves. I won't permit you to serve him during the
8 proceedings. This is part of his criminal proceedings, and
9 you'll have to serve him when he leaves. He'll leave out
10 that door out there.

11 As far as the validity of the service, that is
12 not up to this court to decide. That will be up to another
13 court to decide. I make no determination about the
14 validity of the service. But you can serve him outside
15 when he takes his break, or when we recess for the day, and
16 I expect to recess around 1:30 today.

17 And that's the normal entrance, right over there,
18 the entrance you came through, and he normally comes up the
19 elevator, I believe, and he comes through the lobby
20 downstairs, and you're free to serve him down there, but I
21 don't want you to be serving him in this court during this
22 criminal proceeding.

23 MR. : I understand, Your Honor.

24 THE COURT: All right.

25 MR. : Thank you very much.

1 THE COURT: All right.

2 Are you ready with the jury now?

3 MR. : Yes.

4 (Whereupon, the jury enters the courtroom.)

5 THE COURT: Have you got your next witness lined
6 up?

7 MR. CHALOS: We do, Your Honor.

8 THE COURT: Why don't you step out there, and get
9 him --

10 (Pause)

11 THE COURT: Good morning. We're ready to proceed
12 again. You may call your next witness.

13 MR. CHALOS: Good morning, Your Honor. The
14 defense calls Edward Hoffman to the stand.
15 Whereupon,

16 EDWARD F. HOFFMAN

17 called as a witness by counsel for the Defendant, and
18 having been duly sworn by the Clerk, was examined and
19 testified as follows:

20 THE CLERK: Sir, would you please state your full
21 name, and then spell your last name?

22 THE WITNESS: Edward Francis Hoffman,
23 H-o-f-f-m-a-n.

24 THE CLERK: And your current mailing address?

25 THE COURT: 318 South Merrick Avenue, Merrick,

1 New York.

2 THE CLERK: And your current occupation?

3 THE WITNESS: I'm the President of Ponaris and
4 Hoffman, Incorporated.

5 THE CLERK: Thank you.

6 DIRECT EXAMINATION

7 BY MR. CHALOS:

8 Q Mr. Hoffman, what is the business of Ponaris and
9 Hoffman?

10 A The business of Ponaris and Hoffman Incorporated
11 is we're a group of naval architects, and marine engineers
12 involved in new ship construction, building ships in
13 various parts of the world.

14 Q What were you asked to do in this particular
15 case?

16 A In this particular case, I was asked to visit San
17 Diego, look at the Exxon Valdez as she stood -- as she sat
18 on the waves in San Diego and Nasco (PH) Shipyard. I was
19 asked to write a report, based upon my observations, take
20 some pictures. I was asked to review some underwater tapes
21 taken of the Exxon Valdez as she was in Prince William
22 Sound.

23 I was asked to develop some speed/power
24 calculations, based upon the proponents of the engine and
25 the sea trial of the Exxon Valdez. And I was also asked to

1 be here.

2 Q Were you asked to listen to the testimony of the
3 State's experts and comment on it?

4 A Yes, I was.

5 Q On that testimony?

6 A Yes, I was.

7 Q And did you do that?

8 A Yes, I did.

9 Q Could you tell us a little bit about your
10 educational background?

11 A I graduated from the United States Merchant
12 Marine Academy in 1969.

13 Q That's at King's Point.

14 A That's at King's Point, New York. It's an
15 academy for merchant officers. I also graduated from
16 Stephens Institute of Technology with a degree in ocean
17 engineering in 1976.

18 Q Did you receive a degree from King's Point?

19 A Yes, I graduated in '69 with a Bachelor of
20 Science in marine engineering.

21 Q Did you obtain a license at that time?

22 A I also received a license as a third assistant
23 engineer.

24 Q What type of degree did you receive from
25 Stephens?

1 A A masters of science in ocean engineering.

2 Q Now, how long have you been a naval architect?

3 A I've worked as a naval architect since 1973, with
4 the former company of U.A. Ponaris, Incorporated.

5 Q How long have you been president of Ponaris and
6 Hoffman?

7 A Ponaris and Hoffman started in 1982, so -- eight
8 years.

9 Q Now, in your job at Ponaris and Hoffman, you say
10 you design new vessels?

11 A Yes.

12 Q Design and build new vessels?

13 A Yes.

14 Q How many vessels have you designed and built?

15 A Since '73, I've participated in the design,
16 construction, specifications, plan approval, piping
17 diagrams, stability and trim calculations, of approximately
18 55 vessels.

19 Q Now, were any of these vessels tankers?

20 A Yes, they were.

21 Q How many tankers have you designed or
22 participated in the design?

23 A Between ten and fifteen tankers.

24 Q Are they single skin tankers?

25 A Single skin --

1 Q Single hulls?

2 A Single skin tankers, similar to the Exxon Valdez.

3 Q What other type of vessels have you designed and
4 built?

5 A Other type of vessels would be bulk carriers,
6 which are basically a tank vessel with an engine room, and
7 it carries dry cargo. It can carry grain products, steel
8 products, scrap iron, things like that.

9 Q What other type of vessels besides --

10 A There was also product carriers. Product carrier
11 is nothing more than a tanker with coated tanks, and they
12 carry refined products, refined product oils, such as
13 gasoline, heating oil, and then the cyclohexalines (PH),
14 the dylines (PH), zylines (PH), things like that.

15 Q Are you familiar with the construction and
16 physical makeup of tankers like the Exxon Valdez?

17 A Yes, I am.

18 Q Have you ever inspected damage to vessels?

19 A Yes, I have.

20 Q By that, I mean plate damage, hull damage?

21 A Yes. Yes, I have.

22 Q On how many occasions?

23 Q Well, typically what you have in a shipyard, you
24 have mistakes, and you have problems with the weather. For
25 instance, in Japan, we had a couple of typhoons, and the

1 ship went against the pier and crunched a couple of times.
2 We have locks being damaged all the time. So there's some
3 instances of damage to my ship.

4 Also, in the shipyards you have other ships that
5 are there being under construction, and a couple of years
6 ago -- I think it was in '87 -- there was a Malaysian ship
7 in _____ Korea, right next to us, that was taken out
8 during a typhoon, and she went aground on the rocks, right
9 at _____ in Pusan -- near Pusan.

10 Q And did you have occasion to view that damage?

11 A Yes, I did. As soon as she came back, they put
12 her on the floating dock, and I went under her and I looked
13 at the damage that she sustained.

14 Q Was that damage similar to the damage sustained
15 by the Exxon Valdez?

16 A The damage that she sustained was more of a
17 crushing type of damage on the plates. It wasn't a -- it
18 wasn't an impact damage that I saw.

19 Q Now, have you been involved in sea trials?

20 A Yes. Part of the operation of the ship is --
21 yeah. You have to have a full sea trial before the
22 delivery of the vessel to its owners.

23 Q Would you tell the jury what a sea trial is?

24 A A sea trial is you take the ship out from -- when
25 it's almost completed -- it's not fully completed, but it's

1 almost completed -- you take it out to sea and you go
2 through a progressive sea trial, which means different
3 speeds, different RPMs of the engines, and you develop a
4 speed of that ship.

5 You also have an endurance test that's required
6 by the Classifications Society to prove that the engine
7 will develop -- the endurance at 100 percent MCR, maximum
8 continuous rating of the engine.

9 You also have anchor tests. You also have
10 turning gear tests. You also have -- that's steering gear
11 tests -- you also have maneuvering tests to make the
12 turns. That's required by the U.S. Coast Guard.

13 Q In those instances where you attended sea trials,
14 did they involve slow speed diesel engines?

15 A Yes. All the ships that I've built since '73
16 have been slow speed diesel engines.

17 Q And on those occasions, did you have the
18 opportunity to observe the engine power and thrust --

19 A Yes.

20 Q -- characteristics?

21 A At all times.

22 Q Now, have you ever testified before as an expert?

23 A Yes, I have, on several occasions. A few --

24 Q In court, or in arbitration?

25 A Well, three times in court as a -- in personal

1 injury cases, and two times in arbitration cases, dealing
2 with speed power consumptions testimony, and also cargo
3 handling systems.

4 Q Were you qualified as an expert in those cases?

5 A Yes, I was.

6 Q Do you belong to any professional organizations?

7 A Yes. I belong to the Society of Naval Architects
8 and Marine Engineers, and also the Society of Marine Port
9 Engineers.

10 Q Sir, you're appearing here as an expert. Do you
11 have a fee arrangement with the defense?

12 A Yes. My fee arrangement with Chalos, English and
13 Brown is approximately \$60.00 an hour.

14 Q What do you mean approximately \$60.00 an hour?

15 A Well, it's based upon \$500.00 a day, which is
16 \$62.50 an hour.

17 Q Have you calculated how much time you've spent in
18 this particular case?

19 A Very quickly, not. I can figure it out right
20 yet. But it hasn't been significant. The majority -- the
21 most of my time has been spent in the last two weeks here,
22 when I was listening to the other witnesses.

23 Q Now, let's talk about your trip to San Diego.
24 Tell us specifically what you did in San Diego?

25 A In San Diego, I went out to the ship with Mr.

1 Chalos; Mr. Joe Winer, another consultant; Mr. Mike
2 Walker, he's a captain; and Mr. Tom Russo; and Mr. Madson.
3 And we inspected the Valdez from the wheelhouse, looked at
4 the wheelhouse. We took pictures. We looked at the
5 arrangement of the wheelhouse.

6 We looked at the captain's stateroom, his day
7 room. I went to the cargo control room, looked at that.
8 Noticed that, you know, the cargo control room is almost
9 the exact same as I have on my vessel I'm building in Korea
10 now. I noticed that also the loading computer was gone,
11 was not there.

12 We went to the engine room, the engine room
13 spaces, looked around the engine room, looked at the
14 engine. The engine is a Sulzer (PH) engine, RPA engine
15 similar to engines I've put on my ships in the past.
16 Bigger, but similar.

17 We then went on the deck, and I inspected the
18 main deck, where they have all the pipes, and the valves.
19 The inert gas system, the cargo control system, the
20 manifold and the access hatches into the tanks. What else
21 on the main deck? That was about it.

22 And then we went down below, where she was to
23 inspect the damage, and from there, I took pictures of
24 everything, and we saw damage from the forepeak. I'm sure
25 you've seen it, the pictures and et cetera.

1 A So here's his bedroom, his stateroom, and here's
2 his --

3 Q Let's put it like this so the jury can see.

4 A -- the captain's office.

5 So you come down the ladder, the stairway, and
6 you go into the captain's office. And then you can go into
7 his stateroom.

8 Q Now, is there a doorway leading out to the
9 outside deck?

10 A Yeah, there's two. There's one right directly up
11 and this _____ -- there's another one here.

12 Q So in other words, if someone wanted to come
13 outside -- well, if the captain wanted to come from his
14 room outside, all he'd have to do is go up, down this hall
15 -- would you show the jury?

16 A Yes. He'd walk out his door -- it's basically on
17 the center line of the ship. Make a left and a right, and
18 he'd be out the door, maybe it's twenty feet or so.

19 Q And he'd be outside at that point?

20 A He'd be outside, yes.

21 Q Okay.

22 Now, Mr. Hoffman, can you tell us what it is that
23 you saw when you went down into the dry dock?

24 A The dry dock -- I started again, I started at the
25 forepeak, which is the pointed end of the ship. It -- and

1 I went back to number five.

2 Q Do you need the model at all?

3 A Well, of the ship, yes.

4 Q I'll get it.

5 (Pause)

6 I'm handing to you now what's been marked as
7 State's Exhibit 154. Why don't you describe for the jury
8 what you saw?

9 A The damage -- I started at the forepeak, or the
10 bow area, and I went outside the ship initially to see what
11 type of damage was there, and you know, obviously there was
12 a tremendous amount of damage. There was a big hole in
13 number three. There was a lot of set ups, which means that
14 the structure was pushed up in the -- into the tanks.

15 There was two rocks, one at frame ten, I believe,
16 and frame eleven, which is this area here. The rocks were
17 approximately about five or six feet in diameter, wedged
18 and totally embedded in the steel hull.

19 In this area, between two and three, there was a
20 tremendous amount of plate missing. It was either sheared
21 off, cut off, or lopped off on its way from Naked Island
22 down to San Diego -- San Clemente, wherever she stopped.

23 There was a lot of damage in the aft part
24 between, say, number 4 and 5 center tanks. Then I went
25 inside the tanks, and I looked at the damage on the top to

1 get a good idea how the longitudinals and the frames and
2 all the other material went together and tried to make a
3 determination on exactly what I felt, and what I thought
4 about the damage.

5 Q With respect to the damage that you saw, in what
6 direction was it situated?

7 A The direction of the damage was continuously in
8 an aft plane. There were deep scratches in some areas, on
9 the bottom where the plate was intact, that indicated that
10 the damage started from the bow and went aft and scratched
11 the hull -- I mean, it indicates that it went right over a
12 rock and scratched, or scored, deeply into the hull
13 plating.

14 The indications of the bulkheads or the
15 longitudinal bulkheads as they go transversely across the
16 vessel was that --

17 Q What do you mean by transverse?

18 A This vessel -- this is longitudinal, from fore to
19 aft. Transverse is across the vessel, abeam of the
20 vessel. And there's bulkheads and there's web frames, web
21 frames from here to there, or 16 feet separation. And the
22 longitudinal bulkheads separate the tanks from one to
23 another.

24 So this would be a longitudinal bulkhead. This
25 would be a longitudinal bulkhead. This would be a

1 longitudinal bulkhead, and it means it's intact, and
2 there's no way any oil can pass from this to this, unless
3 they --

4 Q In other words, they're solid bulkheads?

5 A Solid bulkheads.

6 Q What are the other bulkheads?

7 A These are just web frames, other _____ in
8 the ship, and they're -- basically they have holes in them
9 so that oil can pass through back and forth. And they give
10 some rigidity to the hull structure.

11 Q How far apart are the web frames from each other?

12 A This is a web frame. This is 16 feet from one to
13 - one to the next. So that's what the ship is -- that
14 gives it the --

15 Q Could you draw, freehand, if you will, and tell
16 the jury what a web frame looks like?

17 (Pause)

18 A All right.

19 Q (Inaudible).

20 A Well, this is a wing tank, we call it. Port or
21 starboard side. If you look at the ship in the transverse
22 way, you'd see this picture. And this is the center tank.
23 And what a web frame is, is you would have steel coming up
24 like this, and then another piece of -- this is a hole in
25 the tank, and basically, that's it.

1 All this is steel.

2 And the same in the center tank. This -- I'm not
3 an artist, but something like this. And this is all
4 steel. So you have holes in the web frame. Again, you'd
5 have something like this over here, and _____ steel.

6 So the oil can pass from one web frame to the
7 other for the entire length of the tank, and that's what a
8 web frame is, and it runs transversely across the vessel.
9 So this would be, say, the starboard side, and this would
10 be the port side; this would be the center tank, and this
11 would be a wing tank. This also would be a wing tank.

12 Q And, of course, the bulkheads separating the
13 tanks from each other, that is, the number one tank from
14 the number two tank, is a solid bulkhead?

15 A That's a real solid -- all these holes would be
16 solid plate.

17 Q Okay. Now, at the bottom -- you spoke about
18 longitudinals. What do they look like?

19 A By longitudinals -- would look like this. It's
20 just -- if you look at the bottom of the ship, you'd have a
21 T, and this approximately on the bottom of the Exxon Valdez
22 is two feet, and this is about eight inches. And this
23 would be the longitudinal.

24 Now, it's a strength member that goes
25 longitudinally from one tank to the other, and it passes

1 through each tank all the way back at -- to the pump room.

2 Q In other words, they're -- the longitudinals are
3 nothing more than I-beams?

4 A Yes.

5 Q What we would know as I-beams?

6 A Right. And in this case, the spacing between the
7 I-beams, all the way across, is, I believe, three foot.

8 Q Okay. You can sit back down.

9 Now, you were present, were you not, when Dr.
10 Vorus testified?

11 A Yes, I was.

12 Q Or, Professor Vorus?

13 A Yes, I was.

14 Q And you heard him speak about some bowing that he
15 observed in the longitudinals? I think he called it
16 splaying?

17 A Yes.

18 Q And you heard the opinion that he gave with
19 respect to what might have caused that?

20 A Yes.

21 Q Do you agree or disagree with that opinion?

22 A Well, I disagree.

23 Q In what way?

24 A If I could go back to the chart?

25 Q Go ahead.

1 A Or I'll just do it right here.

2 The splaying that he was seeing is that this
3 longitudinal went like this, and that longitudinal went
4 like that, so she came apart. And that could have been
5 caused by a few things. One, a rock forcing this plate up,
6 pushing these things, pushing the longitudinals aside.
7 Another thing could have been that, you know, the lowering
8 of the tide just forced the longitudinals apart.

9 Q What does that mean, the lowering of the tide?

10 A Well, the rise and fall of the tide as she sat on
11 the reef. It would just force the longitudinals apart, and
12 causa the splaying, as you called it.

13 Q If you, when you looked at this area, did you see
14 any evidence of rotational type damage?

15 A No, I didn't.

16 Q Do you recall back -- Professor Vorus testifying
17 that he saw some transverse damage? He described them as
18 subtle scratches?

19 A Yes, I did.

20 Q When you looked at the ship, did you see any such
21 damage?

22 A No, I didn't.

23 Q Let me show you Exhibit 146.

24 (Pause)

25 Professor Vorus identified as Exhibit 146 as the

1 picture on which he saw a subtle -- the subtle scratches
2 that he described.

3 A Uh-huh.

4 Q Will you take a look at Exhibit 146?

5 A Yes.

6 Q Do you see any subtle scratches of the type
7 described by Professor Vorus?

8 A No.

9 Q What do you see in that picture?

10 A What I see is a weld scene.

11 Q One second.

12 MR. CHALOS: Your Honor, may I have the witness
13 approach the jury and show them?

14 THE COURT: Yes, sir.

15 (Pause)

16 THE WITNESS: This is the part of the vessel that
17 Professor Vorhus said that he saw the subtle scratch, and
18 what he's talking about is this line right here. This is
19 the transverse -- it's going transversely across the
20 vessel.

21 What that is -- you see, this is a weld beam, and
22 they put two plates together and they have to weld it, they
23 have to glue them together, and they weld it, and they --
24 and they weld it, put the two plates together. So this is
25 in the longitudinal direction.

1 You also have transverse weld seam, and what he's
2 seeing -- you can see the weld seam here -- just follow it
3 out, and what he's looking at is the weld seam, of the bead
4 of the weld.

5 And when the rock -- you can see this
6 longitudinal scratches -- the rock goes over, or the ship
7 went over the rock, and it scraped the weld seam to cause
8 this -- this problem here. This is what they call -- it
9 would be transverse, because the weld seam is below the
10 plate, and you would see a transverse scratch.

11 BY MR. CHALOS: (Resuming)

12 Q Did you see any evidence of damage caused by the
13 wheelhouse rotating in any particular -- in this area, or
14 any other area of the ship?

15 A No.

16 Q Okay. You may return to your seat.

17 (Pause)

18 Sir, after viewing the damage, do you have any
19 opinion as to its cause?

20 A It's --

21 Q Yes or no.

22 A Yes, I have an opinion, yes.

23 Q Okay. Okay. What is that opinion?

24 A The opinion is that the initial impact, or the
25 explosive impact with the ship in the reef caused the

1 majority of damage to the vessel. Subsequent to that, the
2 rise and the fall of the tide caused more damage of the
3 ship sitting on the reef. That's what --

4 Q Do you have any opinion as to whether any further
5 damage was caused to this vessel after the grounding by the
6 use of the rudder or engines?

7 A No, I don't.

8 Q You don't have an opinion?

9 A I have an opinion that there was no other damage
10 caused.

11 Q Now, were you present -- were you present during
12 the testimony of Mr. Milwee?

13 A Yes, I was.

14 Q Do you agree or disagree with his opinions with
15 respect to the tons aground?

16 A No. I have no disagreement with that at all.

17 Q In other words, you agree with him?

18 A Yes, I do.

19 Q Do you agree or disagree with the calculations
20 that he made as to the power of this particular engine?

21 A No, I agree with that.

22 Q Have you had occasion to look at the power curves
23 of this engine?

24 A Yes, I have.

25 Q Tell us what you reviewed in that connection?

1 A The power curves that developed from the engine,
2 they go through a shop test, and the shop test -- you load
3 it up to different RPMs, and you measure the power.

4 Q What is a shop test?

5 A Well, when the engine is complete, the main
6 engine maker has to prove that this engine can develop so
7 much power. So he does that in front of the supervisor
8 that represents the owners of a vessel, and they have a
9 shop test. And the shop test -- they go through various
10 positions on the engine, with the RPM, and they develop the
11 power. And, from that, they develop a speed/power curve,
12 and that's used to determine the power, how she'll react
13 with the hull when you put the power on.

14 The shop test is without a propeller, and it's --
15 they use a water brake test or a tension meter to restrict
16 the -- the strength or the turning of the -- of the engine.

17 Q Did you have occasion to review those tests?

18 A Yes, I have.

19 Q And did you draw, or prepare a chart, on the
20 basis of the test results?

21 A Yes, I have.

22 Q To the power of this engine?

23 A Yes, I have.

24 Q Let me show you --

25 (Pause)

1 (Defendant's Exhibit AZ
2 and BA were marked for
3 identification.)

4 BY MR. CHALOS: (Resuming)

5 Q Okay. Let me show you what we've marked for
6 identification as Exhibit BA. Would you tell the jury what
7 this is?

8 THE COURT: There's a pointer behind you, sir, in
9 the corner.

10 (Pause)

11 THE WITNESS: All right. This is the RPM of the
12 engine.

13 BY MR. CHALOS: (Resuming)

14 Q What is RPM?

15 A Revolutions per minute. She develops so many
16 turns, and she'll develop so much power. Now, this is the
17 main engine shop test line.

18 Q Is that the test results of the shop tests?

19 A This is the test results of the shop tests. And
20 what you have on this -- on the Y axis is the horsepower
21 generated at different RPMs. so what you do is you plot
22 the revolutions per minute versus the horsepower to develop
23 a curve of the main engine. And that's done at the shop
24 test time.

25 Q What is the other line?

1 A The other line is the sea trial results. When
2 the propeller is put on the shaft of the engine, it
3 develops so much power, but what they do, typical engine
4 builders and propulsion people, is they give it a margin.
5 This is called the margin, between the main engine shop
6 test and the sea trial, the propeller.

7 In other words, this is with the propeller on the
8 ship. This is the results of a water break test, or a
9 tension meter, whatever else they're using there.

10 This curve is developed from the sea trial
11 results, after you -- when the ship's ready for delivery to
12 her owners, they go through a series of progressive sea
13 trials. 50 percent of the engine power, 75 percent, and so
14 on and so forth. And typically, what this is is the margin
15 between the main engine and the sea trials.

16 Q Why is there -- why does this margin exist?

17 A The margin exists because they're afraid of
18 overloading the engine, so they make the propeller lighter,
19 we call it. They change the pitch of the propeller and
20 they make it lighter, so it will absorb less power with the
21 same RPM.

22 That's -- and what they do is they -- the margin
23 is used so they're afraid of the degradation of the hull,
24 and they don't want the vessel to be operating above its
25 limits at the same RPM.

1 Q So what would the crew be using? Which of the
2 data?

3 A They'd be using the data from the sea trial
4 results.

5 Q Okay. Now, on the basis of the data you reviewed
6 from the -- both results, what is the maximum horsepower
7 that this engine can generate?

8 A 31,600 horsepower.

9 Q And what is the horsepower that this engine can
10 generate at 55 RPM?

11 A 55 RPM? 8,600 horsepower.

12 Q Why is there such a difference between the
13 maximum and 55 RPMs?

14 A As you can see, this is a -- it's not a linear
15 curve. If it was linear, it would be like this, but it's
16 an exponential type of curve that fits the -- fits the main
17 engine ship test curves.

18 Q So the maximum horsepower that this engine could
19 put out at 55 RPMs under the sea trial results is eight
20 thousand --

21 A 8,600.

22 MR. CHALOS: Your Honor, I offer Exhibit BA into
23 evidence at this time.

24 MR. COLE: No objection.

25 THE COURT: Admitted.

(Defendant's Exhibit BA
was received in evidence.)

BY MR. CHALOS: (Resuming)

Q Now, we've also marked for identification Exhibit AZ. Can you tell us what -- what this graph is. Did you draw this graph?

A Yes.

Q Okay. What is this graph?

A This is the speed power and RPM curves, and to get an idea -- for the ship's officer to get an idea of how much power and speed he develops at a certain RPM, because most people talk in revolutions per minute. I want to go 55 revolutions. I want to go 60 revolutions. You can generate a curve that will tell you approximately how much speed you can develop, and how much horsepower the engine is developing at the same time.

For instance, if you go to 61 RPM, and the RPM line, you're going to add 61 RPM across, and you come down on this curve and you can -- and you can see that it's about 12,000 horsepower, and your speed is about 11.9 knots. This curve is developed, again, from the sea trial results, in the loaded condition.

Q At a full RPM of 31,600, what is their top speed?

A Top speed is 15.96. 31,600 is this line here, and you follow it down. The speed would be 15.96 knots.

1 Q At 55 RPMs, what would her speed be?

2 A 55 RPM? About ten-and-a-half, 10.5 knots.

3 Q And her horsepower, again, at that --

4 A It would be 8,600.

5 MR. CHALOS: All right. Your Honor, at this
6 time, I offer Exhibit AZ into evidence.

7 MR. COLE: No objection.

8 THE COURT: Admitted.

9 (Defendant's Exhibit AZ
10 was received in evidence.)

11 BY MR. CHALOS: (Resuming)

12 Q Mr. Hoffman, you were present during the
13 testimony of Mr. Greiner?

14 A Yes, I was.

15 Q Do you recall the testimony where he opined that
16 this vessel had twice, before coming to a -- hit once and
17 went over the rock, and then hit a second time and stopped?

18 A Yes.

19 Q Do you agree or disagree with that opinion?

20 A I agree that it's probably a two-rock hit, yes.

21 Q Do you have any opinion in that regard as to how
22 the hitting occurred?

23 A My opinion is most likely the vessel hit -- the
24 initial contact was somewhere between two and three --

25 Q Two and three, do you mean tanks?

1 A Cargo holds, yes.

2 Q Two and three --

3 A Yes. Cargo holds, yes.

4 Q Okay.

5 A And she came aft, and she came into the hull and
6 went aft. Then the next hit was the -- where she fetched
7 up on the reef, and she destroyed the bow and landed on the
8 number two hull, and number two cargo tank, and between
9 number two and number three, because the ship had some
10 momentum when she hit the initial, and then she would fall
11 over and fetch up on the next reef.

12 Q What do you base that opinion on?

13 A The plans I've seen and the -- the diagrams.

14 Q Just on the plans and diagrams?

15 A And looking at the damage myself.

16 Q At San Diego?

17 A At San Diego, yes.

18 Q Do you have an opinion as to what length of time
19 it took between the first hitting and the second hitting?

20 A No, I couldn't really give you a -- I wouldn't
21 know. I wouldn't really know.

22 Q Now, you did some calculations with respect to
23 the rise of the tide between the grounding and the next
24 high tide, or about 2:00 o'clock?

25 A Yes.

1 Q How far did the tide rise between, let's say,
2 midnight and 2:00 a.m.?

3 A Between midnight and 2:00 a.m., the tide rose
4 about three -- three feet.

5 Q And did you do any calculations to determine how
6 far the tide rose between 1:40 a.m. when the engines were
7 shut down and 2:00 a.m. when the tide was at its highest?

8 A Yes. That's 17 minutes between 1:40, and I think
9 it was -- it was one inch that the tide rose.

10 Q Between 1:40 --

11 A Between 1:40 and 1:57.

12 Q Now, you mentioned that you also reviewed tapes
13 of the bottom damage that were taken at Bligh Reef and
14 Naked Island?

15 A Yes.

16 Q Could you describe to us what you saw on those
17 tapes?

18 A Well, again, the -- it was the video experts that
19 were taking the tapes of the bottom and there was a mass
20 confusion, in my opinion, in how to take the pictures, and
21 they were confusing weld seams and whatever, but basically
22 what -- it showed the good detail of the damage done.

23 There was a tremendous amount of holing and
24 set-ups and deformation of the hull. There were also
25 plates hanging down in the neighborhood of fifteen -- eight

1 to fifteen feet, in some areas, just hanging down like a
2 tongue out of the hull.

3 Q Were those plates hanging down, sitting on the
4 bottom?

5 A No.

6 Q Were they interfering with the bottom?

7 A No. At the time they were on Naked Island, so
8 there's deep water there.

9 Q All right.

10 A The time that -- I reviewed the tape from the --
11 at Bligh Reef, and you couldn't see the plates hanging down
12 there, because the ship was on the -- on the rocks at that
13 time, and they didn't want to go under that far.

14 Q If the plates were hanging down at Bligh Reef,
15 and interfering with the bottom, would that create a
16 situation where the vessel would be impaled?

17 A Yes, it would. The vessel would be impaled on
18 Bligh Reef because of the damage to the ship, yes.

19 Q Now, do you agree or disagree with Mr. Milwee's
20 opinion that it would have been impossible for this vessel
21 to move from the reef as she was grounded, using her
22 engines and her rudder?

23 A I agree this vessel was not moving at all.

24 Q It was impossible?

25 A It was impossible.

1 Q Now, you listened to Professor Vorus's testimony
2 with respect to the four or five scenarios that he spoke
3 about had the vessel come off the reef?

4 A Yes.

5 Q Do you have an opinion with respect to the
6 scenarios that Professor Vorhus described?

7 A Yes, I do.

8 Q What is that opinion?

9 A Well, Professor Vorhus went through his
10 tabulations with no consideration of what could have been
11 done to protect the vessel from capsizing and sinking.

12 Q What do you mean, what could have been done?

13 A Well, there are certain things that can be done
14 to the vessel to prevent it from capsizing and sinking.
15 There is -- for instance, they could have done one of many
16 things.

17 Q Who is they?

18 A The crew. The crew could have acted. And for
19 instance, they could have added water to the port side
20 ballast tank.

21 I think Professor Vorhus showed it -- the ship
22 going to starboard, and then down, and then finally
23 capsizing. The number four port tank is a ballast tank,
24 which wasn't holed, so there is an area you can fill up
25 this tank, and what it does, if you look at it this way --

1 the vessel is leaning this way. You fill up this tank,
2 here -- obviously, she's going to come back a little bit.
3 And that could possibly save the ship.

4 There's other things that could be done. The
5 after peak is a tank that is in the extreme end of the
6 ship. They could fill that, and that would prevent the
7 ship from going down by the head.

8 They also have wing engine room tanks that could
9 be filled with ballast water, and again, it would be on the
10 port side of the ship, could bring it back this way.

11 Q How would one go about ballasting number four
12 port, or the after peak, or the engine ballast tanks?

13 A Well, the engine room tanks have to be done in
14 the engine room by the engineers. There's a pump back
15 there, and they can put the valves -- put the pump on and
16 pump the water in. The number four, port wing tank, it's a
17 -- it's a motorized valve that they just have to open. She
18 has a hole, or a piece of pipe down here, and what happens,
19 they can press a button in the cargo control room and the
20 valve will open and it will flood the tank.

21 So it's a press of the button, the valve opens,
22 the tank will start filling with water up to the level of
23 the -- of the -- of the water from the draft.

24 Q How long would that whole process take?

25 A That depends. I don't think it would take too

1 long. You also could use the ballast tank, I mean, the
2 ballast pump. The ballast pump is located in the pump
3 room, and they could fill up the number four port with the
4 ballast pump.

5 Q Well, when you say it wouldn't take too long, are
6 you talking a matter of minutes?

7 A I didn't really do the flow rates on that, but I
8 really don't think it would take that long to fill this up,
9 because it's under pressure from the bottom of the ship,
10 and there's a 20-inch pipe that is the flood pipe for this
11 number four starboard -- port tank. And also, you have a
12 tank -- the ballast pump itself, it's 15,000 gallons per
13 minute that you could pump into this port tank to relieve
14 the heeling (?) of the ship.

15 Q Now, based on what Professor Vorhus determined
16 from his scenarios, in your opinion, if the number four
17 port tank was filled up and the other ballast tanks were
18 filled, as you described, in your opinion, would the ship
19 have floated at that point?

20 A I think so. In my calculations, we needed -- the
21 ship develops a list. A list is this condition, or that
22 condition. At a 3 degree list, this ship is three to four
23 feet down the starboard side. You need 1600 tons of
24 ballast to fill this up. Sixteen -- this tank is 10,000
25 tons, so you need approximately 20 percent of the tanks'

1 capacity to fill this up to relieve a 3 degree list. If
2 it's a 5 degree list, it means it's seven feet, or eight
3 feet down, by the starboard side, and you need 4,000 tons
4 on this side to relieve the list.

5 So in my opinion that it could be done very
6 quickly. The chief officer, chief mate, was in the cargo
7 control room. There's a chronometer, which gives you the
8 angles that the ship is listing right there on the
9 bulkhead, and he would see what is happening. There's also
10 a chronometer up in the wheelhouse. The captain could see
11 what was happening, what was happening to the ship, and
12 that could prevent the capsizing _____.

13 Q What is the chronometer that you speak of?

14 A A chronometer is on the center line of the ship
15 and it's -- basically, it's just a pendulum, and there's a
16 weight at the bottom, and it gives you the degrees of list,
17 either to port or starboard.

18 Q When we say list, we mean --

19 A Heel.

20 Q -- the angle that the ship heels over?

21 A Yes.

22 Q The options that you spoke about, were they
23 viable options for the crew?

24 A Yes.

25 Q Now, was there anything else that the crew could

1 have done, besides ballasting down to keep this vessel
2 afloat?

3 A There's a few other things. I think you've heard
4 that this ship has an inert gas system. The inert gas
5 system could pump air into the tanks, the center tanks, the
6 cargo tanks, and keep a pressure ahead on those tanks to
7 prevent water, or oil, from seeping in, because it -- in
8 Professor Vorhus' calculation, he said 75 minutes, or 85
9 minutes for the ship to finally, you know, capsize.

10 It's a matter of minutes to turn on the inert gas
11 system. It's a matter of minutes to turn on the ballast
12 pumps, either in the engine room or in the pump room. So
13 you're talking minutes and hours, and I really don't think
14 it would capsize.

15 Q Then in your opinion, were there sufficient
16 viable options for this crew had this ship come off the
17 reef to keep it afloat?

18 A Yes, there are.

19 Q Was there anything else the crew could have done
20 besides the IG system and the ballast?

21 A Well, they -- they also could try their best to
22 blank up the -- the air vents that are controlling the flow
23 of the oil or water in.

24 Q Is that from the pressure-backing valves?

25 A Pressure-backing valves. And also the air valves

1 themselves at the ballast tanks. They also could use the
2 ballast pump. Number four starboard tank was mostly a
3 seepage problem. It wasn't holed that much. And what they
4 could have used is the ballast pump to control the flow of
5 water into that tank, basically, keep it dry, and pump the
6 seepage of the water in that tank overboard.

7 Q What effect would that have had?

8 A Well, again, you're seeing -- if she's heeled
9 here, and the ballast pump is used to deduct the water out
10 of the ship, you relieve this weight, and she would come
11 back up.

12 Q So under that scenario, under the scenario of
13 using the inert gas system, and under the scenario of using
14 the ballast tanks on the port side and the after peak and
15 engine room, it's your opinion that the vessel would have
16 stayed afloat, if she came off the reef?

17 A That's correct.

18 Q Professor Vorhus used, I think, four or five
19 scenarios, and in four of the five, the vessel sank. In
20 your opinion, were there any number of other scenarios that
21 could have been done?

22 A Yes. There were -- just as I described, the use
23 of the fore port, ballast it, deballast, four starboard,
24 use the inert gas system to keep the pressure on the
25 tanks. And the ultimate would be the captain driving the

1 ship back into the rocks. That would be the last recourse
2 before she completely sank.

3 Q Sir, you prepared a report, did you not, of your
4 visit to San Diego?

5 A Yes, I did.

6 Q And in this report, you render your opinion of
7 what you saw, and you've taken some pictures?

8 A Yes.

9 Q Is this the report that you've prepared?

10 A Yes.

11 (Pause)

12 Q Does that report constitute the findings at San
13 Diego?

14 A Yes, it does.

15 (Defendant's Exhibit BB
16 was marked for
17 identification.)

18 MR. CHALOS: I've marked the report that the
19 witness has just identified as Defendant's Exhibit BB. At
20 this time, I offer it into evidence, Your Honor.

21 MR. COLE: I object. It's hearsay, and merely
22 illustrative (inaudible).

23 THE COURT: Mr. Chalos?

24 MR. CHALOS: Your Honor, I don't believe that a
25 report of an expert in which he sets forth his opinions,

1 contains pictures of exhibits to San Diego, which are
2 basically the same type of pictures that were taken the
3 other experts that Mr. Cole introduced here and were
4 admitted into evidence, I think it's in the nature of the
5 same type of document.

6 THE COURT: The objection is sustained.

7 MR. COLE: I have no further questions of this
8 witness at this time.

9 CROSS EXAMINATION

10 BY MR. COLE:

11 Q Good morning, Mr. Hoffman, how are you?

12 A Good morning.

13 Q I'd like to talk a little bit about the extent of
14 the damage that you observed during the course of this
15 case. You were hired by Mr. Chalos when?

16 A I think the initial contact, Mr. Chalos called
17 me, I was in Korea in June, so I think it was in August,
18 July or August, of last year.

19 Q And my understanding is that you reviewed -- you
20 went to San Diego to take a look at the damage some time in
21 September --

22 A Yes.

23 Q -- of last year.

24 A Yes.

25 Q You reviewed tapes done by divers?

1 A Yes.

2 Q And you -- those were pretty much the essential
3 areas of your observations of the Exxon Valdez? Plus you
4 reviewed plans and diagrams.

5 A Yes, plans and -- plans I looked at and trial
6 curves --

7 Q Right.

8 A -- and engine shock test, model tests, et cetera.

9 Q You didn't visit the Exxon Valdez in Prince
10 William Sound?

11 A No, I didn't.

12 Q You didn't visit it while it was on Bligh Reef?

13 A No, I didn't.

14 Q Or at Naked Island?

15 A No.

16 Q You didn't visit it when it was outside of San
17 Diego waiting to come into dry dock?

18 A No, I didn't.

19 Q In fact, the first time you actually saw the
20 vessel was in San Diego, correct?

21 A That's correct.

22 Q And when you looked at the tapes of the divers
23 that were taken while the vessel was at Bligh Reef, when
24 were those tapes done?

25 A I believe it was March 26th, 27th, something

1 around there.

2 Q Now, the grounding happened on the 24th, so it
3 would have been two days later?

4 A It was after, yes.

5 Q Several days after?

6 A Yes.

7 Q And there had been how many high and low tides
8 during each date, after the grounding?

9 A Two.

10 Q So the vessel would have gone up and gone down on
11 -- it sat -- squatted on the rocks, so to speak, four times
12 between the time of the grounding and the time of the tapes
13 you saw?

14 A That's correct.

15 Q So the divers' tapes didn't show you the damage
16 that was done by the initial grounding. It showed the
17 damage that had been done by the initial grounding and the
18 squatting on the rocks for three to four days?

19 A That's correct.

20 Q And you don't have any way of knowing what the
21 damage that was done, exactly, by the grounding itself?

22 A Well, I do know that the rising and lowering of
23 tide wouldn't cause plates to be separated from the hull.
24 The damage that you see was caused by rising and lowering
25 of tides, would be some deformation set up.

1 Q That's crushing, basically, right?

2 A Crushing, right. The plates themselves would be
3 -- were separated from the hull and that wouldn't be caused
4 by the rising and lowering of tides.

5 Q Well, you must have some opinions that when this
6 vessel went through the rock, and came grounded, that early
7 morning of the 24th, it tore up a lot of the plates on the
8 bottom of the Exxon Valdez, correct?

9 A Yes.

10 Q And I'm sure that those plates would have -- some
11 of them would have actually been torn away from the fabric
12 of the hull?

13 A Yes.

14 Q And they would have been hanging down?

15 A That's correct.

16 Q And there would have been a lot of mangled steel
17 down there, too?

18 A Yes.

19 Q And there also would have been contact with the
20 reef at that time, right?

21 A That's correct.

22 Q Because, as you said, it's impaled, right?

23 A It's impaled. It's sitting on the reef.

24 Q Now, you know that there was a storm that hit
25 three days afterwards, correct? After the ship was in --

1 A Yes. I read, or I heard, that the -- it happened
2 on Sunday, I think, that the storm kicked up and she spread
3 out there.

4 Q And that caused the vessel to twist, correct?

5 A I don't know.

6 Q Well, do you think the vessel stayed there, or --

7 A I have no opinion, and I have no reason to
8 believe she twisted. No one -- I didn't see any documents
9 to that fact.

10 Q And -- now, you see damage of crushing, is that
11 correct?

12 A Yes.

13 Q And you don't know what damage existed before
14 that crushing took place, right?

15 A Well, I do know the two rocks imbedded in the
16 steel were not caused by crushing. They were imbedded in
17 the steel.

18 Q That was up at the -- close to the forepeak,
19 correct?

20 A No, it was in the number one.

21 Q In number one?

22 A Starboard, yeah.

23 Q But most of the crushing actually occurred in
24 tanks two and three?

25 A The crushing -- yeah. Yes, exactly.

1 Q So you don't know what damage was done around
2 tanks two and three before the crushing?

3 A No.

4 Q And if you've got metal hanging down from the
5 bottom of a vessel, and if you've got that vessel making
6 contact with the bottom, and if you've got the vessel
7 twisting, turning, maneuvering back and forth, you'd expect
8 to see damage from that, wouldn't you?

9 A No, no. Because the damage that I saw that
10 wasn't caused by crushing were the transverse web frames,
11 that the bottom connection it was buckled at, which means
12 to it cause that to happen, something had to push it out.
13 The rising and the lowering of the tides would not cause a
14 buckling in the aft direction on the web frame.

15 The same thing with the transverse bulkheads.
16 They were set up in the aft direction. That means it was
17 going backwards.

18 Q Do you recognize that?

19 A Yes, I do.

20 THE COURT: What are you referring to? Exhibit
21 what?

22 MR. COLE: 103.

23 THE COURT: Thank you.

24 BY MR. COLE: (Resuming)

25 Q In Exhibit 103, in the area of -- where was the

1 reef -- or the vessel impaled?

2 A The reef was in this area. This is number two,
3 and that's number three. And the area of longitudinal --
4 the transverse bulkhead 23, up to, say, 13.

5 Q And you're saying that in that area, the vessel
6 was in contact -- the ship was in contact with the ground?

7 A Yes. In various times, at high and low tide,
8 yes.

9 Q Well, after the grounding?

10 A After the grounding.

11 Q And, if you twisted the vessel, it wouldn't cause
12 any damage, even though it's in contact with the ground?

13 A No, because the damage is already created. The
14 damage is already there.

15 Q It's not doing any more damage?

16 A I don't think so.

17 Q So the twisting motion doesn't cause anything to
18 happen?

19 MR. CHALOS: Your Honor, it's been asked and
20 answered. He answered three times.

21 THE COURT: I think so, Mr. Cole.

22 BY MR. COLE: (Resuming)

23 Q Now, Mr. Chalos asked you to make a report in
24 this case?

25 A I think I asked him if I should make a report,

1 and he said yes.

2 Q Now, you've never testified before, have you, on
3 how damage has been caused to a ship that's run -- a vessel
4 that's run aground on rock?

5 A No, I haven't.

6 Q In fact, the times that you've testified, the
7 three times in court you've testified about a woman on a
8 passenger ship that broke her arm, correct?

9 A Yes.

10 Q One of them? In another one, you testified about
11 another woman on a ferry who broke her nose and lost some
12 teeth. It was a personal injury case, correct?

13 A That's correct. Personal injury cases in court.

14 Q And the last one was a woman who had a door that
15 hit her in the behind or something like that?

16 A Uh-huh.

17 Q And the arbitration cases, you testified once
18 about a ship design having to do with a no defect in cargo
19 handling equipment, correct?

20 A Yes. It had a defect in the cargo handling
21 equipment.

22 Q And the other arbitration cases that you
23 testified in as an expert was where you had determined the
24 amount of fuel oil of a ship from Nigeria to the Bahamas?

25 A The amount of fuel oil consumed by the main

1 engine from Nigeria to the Bahamas, that's correct.

2 Q And, in fact, you've only seen one ship that's
3 run aground, have actually personally seen one ship out in
4 the ocean that's run aground?

5 A That's correct.

6 Q And that was one that was blown off its moorings
7 by a typhoon, correct?

8 A That's correct.

9 Q And you weren't asked to render any opinion in
10 that case?

11 A No, I wasn't.

12 Q You just went out to look at it for your own
13 personal --

14 A That's correct.

15 Q -- gratification, correct?

16 A That's correct.

17 Q And you gave some opinions about Professor
18 Vorhus' calculations, is that correct?

19 A That's correct.

20 Q Did you design a computer program to simulate
21 what would happen?

22 A No, I didn't.

23 Q You didn't.

24 A No, I did not.

25 Q Actually, you testified about a number of things

1 that the crew could have done, correct?

2 A Yes, I did.

3 Q But the fact is that you only have a third
4 engineer's license, correct?

5 A That's right.

6 Q And the last time you sailed on a ship was in
7 1971.

8 A No. I've sailed on ships every time we have sea
9 trials. I'm responsible for them. I'm responsible for the
10 entire operation of the sea trials of the vessel on diesel
11 ships from 1973 on.

12 Q But you never sailed as a seaman since 1971.

13 A No, I haven't.

14 Q Those are just trials, right?

15 A I'd like to say they're more than trials.

16 Q Well, that's all they are. They're just making
17 sure that the ship you build is up to what you've been
18 asked to do, correct?

19 A That's correct.

20 Q They're generally -- you're not going from port
21 to port?

22 A No, you're going from point to point.

23 Q And you weren't even actually handling those
24 ships when you were on the trials, were you?

25 A I was responsible for the owner's side of the

1 trials.

2 Q You were just responsible to be there, and watch,
3 and make sure that everything went according (inaudible) --

4 MR. CHALOS: Your Honor, I think Mr. Cole is
5 haranguing the witness here.

6 THE COURT: Objection overruled.

7 BY MR. COLE: (Resuming)

8 Q You were just required to make sure that the
9 owner's interests were fulfilled, right?

10 A I was required to make sure the ship performed up
11 to its specifications and to protect the owner's interests
12 in the building of the ship.

13 Q But you weren't actually the one giving the
14 instructions on how to maneuver the vessel?

15 A I was the one that was required to go through the
16 sea trial plan, and the sea trial plan details everything
17 that belongs, and that is required by the sea trial. Which
18 means, the steering gear test, the anchoring test, the
19 endurance tests required by classification societies, the
20 speed trial, the winch pull (?) test and the cargo system
21 to make sure she performs up to its capability and
22 specification.

23 Q But there was a captain there that was running
24 the ship for you?

25 A The captain was hired by the shipyard, yes.

1 Q Now, you've never been involved in a salvage
2 operation, either, have you?

3 A No, I haven't.

4 Q You don't know what it takes to salvage a vessel.

5 A No, not at all.

6 Q You ever been on a ship that's grounded?

7 A No, I haven't.

8 Q So you really don't have any firsthand knowledge
9 on what it takes to refloat a vessel.

10 A No, I don't.

11 Q You don't have any firsthand knowledge on what it
12 takes to keep a vessel floating after it's been damaged?

13 A Well, this -- well, after it's damaged, there are
14 certain things you can do, and -- to the vessel. Firsthand
15 knowledge, no, but design knowledge and -- I do have.

16 Q But no firsthand knowledge.

17 A No.

18 Q One thing. You indicated that if the captain
19 wanted to go to -- outside to take a look, if he went down
20 a hallway and turned right, didn't go up the stairs, but
21 just kept going straight, right?

22 A No. He had to make a right turn, then -- no. He
23 had to make a left turn, then a right turn.

24 Q Yeah, a left turn outside this door, and then a
25 right turn --

1 A -- right turn, along the passageway and straight
2 to the exit on the -- on that -- on his deck.

3 Q And that just shows him where -- that just looks
4 at where the vessel's been, right? That was that, from
5 that position?

6 A Yes.

7 Q So he can't see where he's going when he walks
8 out?

9 A Of course. He can't see anything.

10 Q Now, you have worked for Mr. Chalos in the past,
11 haven't you?

12 A Not for Mr. Chalos. For his firm, yes.

13 Q Mr. Chalos' firm does maritime work in New York,
14 don't they?

15 A Yes, they do.

16 Q And you were paid by them in the past?

17 A Yes, I have been.

18 Q Was it the same fee schedule as in this case?

19 A I think it was a little less.

20 Q You're getting paid more for this case?

21 A In one instance, this is -- I guess it was '81 or
22 -- no, '84 or '85, I was paid less, and in the second
23 instance, the exact same.

24 Q So you've worked for him twice in the past?

25 A Yes, I have.

1 Q Do you expect to continue doing consulting work
2 in the future?

3 A Of course.

4 Q Now, I didn't quite understand, how much have you
5 billed Mr. Chalos up to this point?

6 A I haven't billed him. Nothing.

7 Q You've not billed anything?

8 A No. As I said before, the most time I've spent
9 has been up in -- up in Anchorage. I --

10 Q That's been at \$500.00 a day?

11 A Well, sometimes I -- I came out here two weeks
12 ago Wednesday. That's because I had a job to do. I had to
13 inspect a ship in Portland, Oregon. So when I came up here
14 to Anchorage, I sat in on the testimony, but I also wrote a
15 report for the people back in New York that asked me to
16 inspect the ship in Portland.

17 So that has taken some of my time. I -- you
18 know, I didn't really calculate how much time I would bill
19 to Mr. Chalos, nor the other people, because -- the report,
20 I would say, took possibly two days to write.

21 Q How much do you expect to bill Mr. Chalos?

22 A Well, if I've been here -- let's say, fifteen
23 days, that, and including the San Diego trip, one or two
24 days in October, November, December last year, maybe four
25 or five days looking at the tapes, a couple of days

1 preparing, say it was -- I don't know. Twenty, thirty
2 days. So that would be twenty -- ten to fifteen thousand
3 dollars.

4 Q And then on top of that, you get your expenses?

5 A Yes.

6 Q Now, at one point -- I just want to clear up one
7 point, that maybe you misspoke, or maybe I misheard. The
8 longitudinals, they run lengthwise?

9 A Yes, sir.

10 Q Right? Not this way?

11 A That's right.

12 Q Right. Okay. I just wanted to _____.

13 Let's see. I'd like to go back to this -- you're
14 an engineer, is that right? Basically?

15 A Well, my initial training was as an engineer. At
16 King's Point you take -- at the United States Merchant
17 Marine Academy, you also take, you know, cargo systems and
18 officer curriculum.

19 Q You worked with engines in your job. In fact you
20 told the jury that you put engines in some of the vessels
21 that you designed, correct?

22 A I put engines in all the vessels I design.

23 Q Okay. You have a pretty good understanding of
24 engines?

25 A Yes, I do.

1 Q Do you feel that you're an expert in them?

2 A Well, I --

3 Q In the design, and in what engines should go in
4 certain types of vessels? How about that?

5 A Yeah. I would say I know basically what engine
6 is recommended and what engine you could put in a ship like
7 this, yeah.

8 Q Are you going familiar with car engines at all?

9 A No, that's a gasoline engine. Don't deal with
10 them.

11 Q You don't deal with them at all?

12 A No.

13 Q You're from _____?

14 A No, Merrick. M-e-r-r-i-c-k.

15 Q Is there snow in Merrick?

16 A Snow?

17 Q Do you get snow at all?

18 A Oh, yeah. It's part of New York state, so
19 there's some snow.

20 Q Do you ever get stuck in your car, in the snow?

21 A Haven't in a long time.

22 Q Well, let's say the last time you did. Do you
23 remember when you got stuck?

24 A I really don't remember.

25 Q Well, let's -- let me give you a situation.

1 Let's say you did get stuck.

2 A Okay. I got stuck.

3 Q Okay. Would you -- if you wanted to get out,
4 would you push the accelerator full ahead, you know, right
5 to the floor, to get out?

6 MR. CHALOS: Your Honor, I object. It's
7 irrelevant.

8 MR. COLE: I can tell you the relevance very
9 simply.

10 THE COURT: No, I don't want to hear the
11 relevance. We're talking about a 900-foot tanker and not a
12 car, Mr. Cole, so there's no relevance, in my opinion. Go
13 to the next question, please.

14 BY MR. COLE: (Resuming)

15 Q Well, what would the RPM be on the Exxon Valdez
16 24 minutes after you've put it on load program up?

17 A Twenty-four minutes after load program up?

18 Q Uh-huh.

19 A Takes approximately 45 minutes to reach full sea
20 speed, so you're talking about 55 RPM, up to 82 RPM, so
21 let's say it's 30 RPM, so it would be about half, 15, it
22 would be about 70 RPM.

23 Q And your -- when you've talked about the
24 available power, in this right here, you compared the RPMs
25 on the power from what it would be at approximately --

1 what? 60, 61 RPM to what it would be at 82 RPMs? Is that
2 correct?

3 A Well, there's --

4 Q (Inaudible).

5 A You can say -- I just drew in 61 so you'd have an
6 idea. At 55 RPM on sea trial results you'll develop a
7 power of approximately 8600 horsepower. At 61 RPM,
8 revolutions per minute, you come up on the curve, you go
9 over, you'll develop about 12,000 horsepower. And the
10 same, at 82.6, she'll develop maximum at 31,600 horsepower.

11 Q What's cap -- would you explain to the jury what
12 cavitating means?

13 A The propeller is designed for certain
14 cavitations. A cavitation is nothing more than -- well,
15 there's a lot of cap -- there's varying degrees of
16 cavitation. Typically, an engine or a ship like this would
17 be designed for a back cavitation, which is a degradation
18 of the back side of the blade, and you'd get bubbles in the
19 air back there, and that's cavitation.

20 It will reduce the power of the -- of the -- the
21 propeller is utilizing.

22 Q What happens when a tanker is hung up on rocks?
23 Does that -- does that cause cavitation?

24 A It could cause cavitation.

25 Q Well, explain to the jury what that means.

1 A Well, the propeller wouldn't develop as much
2 power.

3 Q So if it was hung up on the rocks, it wouldn't
4 necessarily be put into load program up. It wouldn't
5 necessarily generate 31,600 horsepower?

6 A Well, it would reduce it slightly, but it
7 wouldn't reduce it tremendously.

8 Q What happens to the engines of a tanker when it's
9 standing -- when it's sitting hung up on a rock and you put
10 it to load program up?

11 A Well, it will continue to go to load program up
12 until something happened.

13 Q It overheats, doesn't it?

14 A It could happen.

15 Q And did -- have you read the testimony of the --
16 of any of the witnesses in this case?

17 A Mr. Kunkel.

18 Q Did you happen to read Mr. Glowacki's testimony?

19 A No, I didn't.

20 Q Would it surprise you that Mr. Glowacki said that
21 he noticed the engine overheating shortly after the vessel
22 hit the rocks?

23 A Well, I imagine the vessel was on the rocks and
24 the engine was still running after she hit. That could
25 have contributed to it.

1 Q And an overheating engine is not a -- a good
2 thing, is it?

3 A Well, you have safeguards on the engine to
4 protect the engine from overheating.

5 Q But it can ruin an engine if you run it too long
6 in an overheating situation, correct?

7 MR. CHALOS: Your Honor, I'm going to object.
8 Mr. Cole is mischaracterizing Mr. Glowacki's testimony.
9 Mr. Glowacki didn't say the engine overheated. What he
10 said as lube oil alarm went off, showing that there was a
11 high temperature in the lube oil. That's not the same as
12 overheating the engine.

13 THE COURT: The objection to the last question?

14 MR. CHALOS: Yes, it --

15 THE COURT: He asked him if it could ruin an
16 engine if it overheated, I think is what his question was.

17 MR. CHALOS: Your Honor, I wouldn't object to
18 that generally, but I think that Mr. Cole has been
19 mischaracterizing the Chief Engineer's testimony, or
20 mischaracterizing it, and that's what I'm objecting to.

21 THE COURT: The question has been asked and
22 answered. The objection is overruled as to this last
23 question.

24 BY MR. COLE: (Resuming)

25 Q In fact, these engines that you put in tankers,

1 and the propellers, they're designed under the assumption
2 that the vessel is going to be going through the water
3 either forward or backward, correct?

4 (TAPE CHANGED TO C-3663)

5 A That's correct.

6 Q I would like you to -- let me get this out of
7 your way.

8 A Sure.

9 Q Take this marker, and explain to the jury your
10 theory of how the damage occurred to the tanker, how it hit
11 the first rock, second rock. Can you show it up with the
12 diagram?

13 A Yeah, I guess.

14 (Pause)

15 Let's see. This. This. (Inaudible).

16 All right. This is one, two, three, four, five.

17 What I think happened is as she was in a turn,
18 and possibly a rock entered around here, continued as the
19 vessel was swinging to starboard, and exited there. She
20 continued slightly to the next rock, or the next reef, and
21 it crushed the bow, and landed in this area.

22 Q Okay. Thank you. You can sit down.

23 So you didn't see evidence of -- you sat through
24 the other witness's testimony, didn't you?

25 A Yes.

1 Q Experts, who talked about the damage?

2 A Yes.

3 Q And you heard them say that they saw a tunnel,
4 from about the forepeak, that ran through the center tanks,
5 and all the way out the aft section on the starboard side?

6 A Yeah. I mean, this is just schematic. The
7 tunnel is -- that they were talking about, was this -- I
8 assume that this was the damage to the forepeak and number
9 one, and landed on number two and three. And that embedded
10 the rocks in number one tank, the two big rocks.

11 The initial hit could have come here, or I
12 believe it probably entered here someplace around here.

13 Q Well, if it entered right there, someplace around
14 there, the first one, did you do any calculations on the
15 amount of turn that the ship was in?

16 A No.

17 Q Basically what you're saying is that this ship
18 was making a turn about this point right in here, is that
19 correct? Somewhere?

20 A Well, you know, whether --

21 Q So _____ something like that, he'd have to
22 be making his turn like that.

23 A Well, whether it started here and continued or
24 here and continued, I wouldn't know.

25 Q But you didn't see a continuous line from the

1 front all the way to the end?

2 A I saw continuous damage. But to say that this
3 was continuous, I really couldn't tell you.

4 Q Now, finally, you gave some opinions about
5 Professor Vorhus' computer simulated -- for lack of a
6 better word, sinkings.

7 A Scenarios.

8 Q Scenarios. Okay.

9 A Uh-huh.

10 Q But you didn't do any computer-simulated
11 scenarios yourself?

12 A No, I didn't.

13 Q And you didn't even -- did you call Professor
14 Vorhus and talk to him about how he arrived at these
15 conclusions?

16 A No. I looked at his calculations.

17 Q Okay. Was there anything wrong with the
18 calculations that you saw?

19 A The thing that was wrong with his calculations is
20 that he didn't consider actions by the crew. I really,
21 sincerely doubt that the crew would sit there and watch the
22 ship sink.

23 Q Well, let's talk about that. You said that what
24 he could have done -- one of the things he could have done
25 -- was added water to the aftpeak. Is that correct?

1 A Yes.

2 Q So if he adds water to the aftpeak, and he's got
3 a full forepeak, and he's got two full starboard tanks,
4 ballast tanks, what keeps this vessel floating?

5 A If you add water to the aftpeak, it will release
6 the trim of the vessel by the head slightly. This tank,
7 full, is about 2500 tons. The forepeak, full, is about
8 6500 tons. So the net difference is about 4000 tons
9 forward, and that would be it.

10 Q But isn't the -- it's true, isn't it, that the
11 aft is -- the reason you have a ballast tank there is to
12 provide -- is partially to provide flotation for the
13 vessel, buoyancy.

14 A Well, the -- the aftpeak tank?

15 Q Yes.

16 A It provides flotation to the vessel. It also
17 provides arrangement of the trim. In certain instances,
18 you want to be coming into port, for instance. You want to
19 be on an even keel, and if you're trimmed by the head, you
20 just trim the aftpeak and the engine room tanks down a
21 little bit, and you can get an even keel situation.

22 Q Well, under your theory, you could also flood the
23 engine room and that would bring up the forepeak too,
24 wouldn't it?

25 A Come on.

1 Q Well, isn't that right, under your theory?

2 A That's not a logical conclusion. The crew would
3 never flood the engine room to bring up the forepeak.

4 Q The next thing is, you indicated you could open
5 up a -- a pipe on the pump side and allow water to come
6 in. Is that correct?

7 A No. I indicated that there is a flood, a flood
8 control valve, and it's a valve in number four port, as
9 well as number four starboard, and number two ballast
10 tanks, that is a motorized control valve that you press in
11 the cargo control room that opens up the butterfly valve,
12 and then the water in the bottom will flood the tank.

13 Q Okay. But it doesn't pump water into the vessel?

14 A No. There's two ways you can get water into the
15 ballast tanks.

16 Q I'm just talking about that one scenario right
17 there.

18 A Yeah, that one -- yes. It would flood the tank
19 up to the level of the draft of the boat.

20 Q But water only comes in at a rate that air can go
21 out, correct?

22 A Yeah.

23 Q So if there is restrictions on the -- up above,
24 only -- water can only come in as much as the air is
25 allowed to go out, right?

1 A That's correct.

2 Q What's the volume of the port ballast tank?

3 A About 10,000 tons.

4 Q No, the volume.

5 A I don't remember, to tell you the truth.

6 Q So you don't know how long, then? You said that
7 to pump water into this, the pump pumps about 15,000
8 gallons per minute? Is that correct?

9 A Yeah. That's the ballast pump that's in the pump
10 room.

11 Q Do you know how -- you don't know, then, how long
12 it would take to pump up the port valve's tank?

13 A Well, if you open up the valve, the water starts
14 flooding in, and if you pump -- use the ballast pump,
15 15,000 gallons per minute is approximately 3,500 tons per
16 hour.

17 Q And in your opinion, this would have floated, if
18 he would have done that?

19 A Yes.

20 Q But you didn't run any calculations?

21 A I ran a calculation to determine how many tons he
22 needed at different list conditions.

23 Q But that only corrects for the list, is that
24 correct?

25 A It corrects for the list, and it also -- this

1 number four, it's after the midships. It would correct the
2 trim.

3 Q That doesn't stop the water from coming in. It
4 just slows it down. Correct?

5 A Well, it would stop it up to the level of the
6 draft forward. In other words, if your ship is heeling --
7 or trimming by the head, and heeling to the starboard and
8 you put water in number four, which is after the midship,
9 midship point, it will have a tendency to bring the ship up
10 on the trim and over on the heel.

11 Q But you still are in a condition where it's only
12 slowing down the intake of the water, correct?

13 A Slowing down the intake -- well, no. It would
14 stop the intake of the water. The water will actually flow
15 out of here, because you're lifting the ship up. It will
16 be less water in there.

17 Q Now, your assumption is that the crew would have
18 been doing all this at the time this was happening,
19 correct?

20 A I know the crew would have done something. They
21 wouldn't have watched the ship sink.

22 Q But there is no evidence that they did any of
23 this stuff on this particular night, is there?

24 A No. The ship was impaled on the rocks. It
25 wasn't going anywhere. It's another scenario.

1 MR. COLE: I have no further questions.

2 MR. CHALOS: Your Honor, I just have a few
3 minutes. It's about ten after 10:00. Should we take a
4 break?

5 THE COURT: Yes, let's take our break.

6 Don't discuss this matter among yourselves or
7 with any other person, or form or discuss any opinions.

8 THE CLERK: Please rise. This court stands in
9 recess, subject to call.

10 (Whereupon, the jury leaves the courtroom.)

11 (A recess was taken from 10:10 a.m. until 10:30
12 a.m.)

13 THE COURT: I understand you needed to take
14 something up before the jury comes in, Mr. Cole?

15 MR. COLE: Yes. Your Honor, while we were out in
16 the hallway, I was just accused of passing a threat along
17 to a witness by an Exxon attorney. I want to bring
18 something to the Court's attention. I believe I have an
19 ethical obligation to.

20 We had an interview with a tanker captain last
21 night who works with Exxon, in the presence of Mr. Chalos
22 and Mr. Russo, talking about how he interpreted the rules
23 of the Coast Guard, and they are different than the Coast
24 Guard interprets those rules. After the interview, we
25 thought about it, and this morning, just to make sure, in

1 our own minds that there's no problem arising out of that,
2 we contacted the Coast Guard to ask what they would do if
3 tanker captains testified that they were routinely doing
4 things that were not within the rules.

5 THE COURT: Now, you say "we contacted." Is this
6 you personally, or --

7 MR. COLE: Trooper Stogsdill did.

8 THE COURT: All right.

9 MR. COLE: Sergeant Stogsdill. He's not in the
10 courtroom right now, but my understanding is when he told
11 that, the Coast Guard had indicated that they had thought
12 about that, and that they would, or might, look into it,
13 was my understanding.

14 Our instructions all along have been, when
15 dealing with Exxon officials, to talk with Exxon attorneys,
16 and so I passed that along, under an obligation that I felt
17 I had under the case law --

18 THE COURT: Passed what on?

19 MR. COLE: That information that I just gave you,
20 to an Exxon attorney. I did not talk to the witness,
21 haven't talked to the witness.

22 THE COURT: You passed on information. What
23 information did you pass on? I'm sorry. I don't
24 understand?

25 MR. COLE: I just told the Exxon attorney that we

1 had interviewed this person, that there was an indication
2 that his practices might be different than what the Coast
3 Guard regs, pilotage regs, are, and that he should be aware
4 of that, and that the -- that we had contacted the Coast
5 Guard and they had indicated they might take action.

6 THE COURT: Is that what they said? They might
7 take action.

8 MR. COLE: They might look into it. I'm sorry.
9 They might look into it.

10 THE COURT: What did you tell the Exxon attorney,
11 they might take action, or they might look into it?

12 MR. COLE: They might look into it. And I just
13 want to get that on the record. I felt that that was my
14 obligation.

15 THE COURT: All right. It's on the record.

16 MR. MADSON: Your Honor, I want to get something
17 else on the record. I don't know what the motivation of
18 the State was for doing this. It may have been in good
19 faith, and it may not have been, but I don't think that's
20 necessarily the point.

21 The point is that the Coast Guard, the Justice
22 Department, by -- for their own reasons, may decide to use
23 this as an intimidation tactic for witnesses that we intend
24 to call. If that happens, and witnesses are afraid to
25 testify because of action the Coast Guard might take, that

1 prohibits us from getting a fair trial.

2 That -- even though this is not the State's --
3 let's say the State isn't directly responsible for that,
4 still, I think, this Court has an obligation to guarantee a
5 fair trial for the Defendant, and if it's prohibited by
6 some outside interference or force, I think we run the risk
7 of a mistrial here, and I guess that's my concern, is that
8 if -- now, I don't know. I wasn't party to any of these
9 conversations, but I'm just saying if that does arise, that
10 just gives me my concern, and I wanted to let the Court
11 know what the potential problem, as we see it, is.

12 THE COURT: Do you expect that you're going to
13 call a witness, and ask him an opinion, or a question, and
14 he's going to take the Fifth Amendment because of that
15 question?

16 MR. MADSON: Well, until this happened no,
17 absolutely not. We don't know what effect that might have
18 to a witness now. This just occurred, just a short time
19 ago. But we have witnesses that we would expect to call,
20 to say, "Here's what we do as a matter of habit. That's
21 what everybody does. Here's where the pilot gets off. We
22 have no pilotage. This is what's done."

23 THE COURT: There's no application before the
24 Court. You just want to --

25 MR. MADSON: Yes. We just want to alert the

1 Court to -- instead of being surprised, you know, the Court
2 at least knows that this is on the horizon, I guess.

3 THE COURT: All right.

4 Are we ready now with the jury?

5 All right. Let's get the jury.

6 (Whereupon, the jury enters the courtroom.)

7 THE COURT: Mr. Chalos?

8 MR. CHALOS: All right. Your Honor, during the
9 break I reviewed my notes, and I find I have no further
10 questions for this witness.

11 THE COURT: Will counsel approach the bench?

12 (The following was had at the bench:)

13 THE COURT: Do we have a question of fact of how
14 wide this vessel is at the widest?

15 MR. : I don't think so, Your Honor
16 (inaudible).

17 THE COURT: All right.

18 MR. : (Inaudible).

19 THE COURT: Yes, I'm going to ask him _____.

20 (The following was had in open court:)

21 THE COURT: Sir, assuming this vessel is 166 foot
22 across at its widest part, how far would you estimate it to
23 be across in the area immediately behind the
24 superstructure, near that area of the deck --

25 THE WITNESS: Oh, you mean --

1 THE COURT: Yes,. Right behind that
2 superstructure, where the bridge is.

3 THE WITNESS: You want to know the length, or
4 the --

5 THE COURT: Width.

6 THE WITNESS: -- the width. This is 166. I
7 really -- I don't know if this is the scale. I assume it
8 is.

9 THE COURT: An estimate is what we're looking
10 for.

11 THE WITNESS: Okay. About 120 feet.

12 THE COURT: And the depth that is accessible from
13 the captain's quarters behind the superstructure, how wide
14 is that deck, though?

15 THE WITNESS: The -- from his -- well, there's a
16 -- as he comes out, there's a ladder. There's a ladder
17 landing. I guess it's -- there's no deck behind this.
18 There's just a landing where you go on the outside, as an
19 outside -- outside ladder.

20 THE COURT: Well, on this model over here --
21 maybe counsel could turn it around for the witness. It
22 looks like there's little decks out there.

23 THE WITNESS: Your Honor, they're just landings
24 for ladders. I believe, this -- you see, the ladders --
25 there's only one ladder going from the bottom of the ship,

1 or the main deck, up to the wheelhouse. So if one came out
2 of any of those -- the aft end of the deck, there's a
3 platform and a ladder going down.

4 THE COURT: And how wide is the platform, then,
5 or landing, as you want to call it?

6 THE WITNESS: I believe it's about
7 three-and-a-half, four feet.

8 THE COURT: And then how far does it go from side
9 to side?

10 THE WITNESS: Side to side? Forty feet.

11 THE COURT: And so, are there any railings around
12 it?

13 THE WITNESS: Yes.

14 THE COURT: How high are the railings?

15 THE WITNESS: Three feet.

16 THE COURT: So could you estimate from the
17 farthest side of the railing, farthest side of that little
18 landing, to the edge of the vessel, how far that would be?

19 THE WITNESS: I would say the half-length would
20 be about -- 166 divided by two would be 83, and 20 over
21 there -- it would be about 50 feet to the edge of the
22 vessel.

23 THE COURT: All right. Thank you.

24 That's all the questions I had.

25 MR. CHALOS: I have no further questions.

1 THE COURT: May the witness be excused?

2 MR. CHALOS: Yes.

3 THE COURT: Mr. Cole?

4 MR. COLE: Yes.

5 THE COURT: You're excused from further
6 participation.

7 You may call your next witness.

8 MR. CHALOS: Your Honor, at this time, the
9 defense calls Peter Shizume.

10 Whereupon,

11 PETER SHIZUME

12 called as a witness by counsel for the Defendant, and
13 having been duly sworn by the Clerk, was examined and
14 testified as follows:

15 THE CLERK: Sir, would you please state your full
16 name, and spell your last name?

17 THE WITNESS: Peter Shizume, S-h-i-z-u-m-e.

18 THE CLERK: And your current mailing address,
19 sir?

20 THE WITNESS: 33 Kingston Avenue, Hicksville, New
21 York 11801.

22 THE CLERK: And your current occupation?

23 THE WITNESS: I'm presently retired, but I'm
24 doing consulting work.

25 THE CLERK: Thank you.

DIRECT EXAMINATION

1
2 BY MR. CHALOS:

3 Q Good morning, Mr. Shizume.

4 A Good morning.

5 Q What type of consulting work do you do?

6 A Well, primarily marine simulation and algorithm
7 development.

8 Q What is marine simulation and algorithm
9 development?

10 A Well, marine simulation is the simulation of the
11 position, velocity and heading of the ship from information
12 that you input, for example, rudder and throttle
13 information.

14 Q This is all one on the computer?

15 A It's a computer based system.

16 Q What have you been asked to do in this particular
17 case?

18 A Well, I was asked to run a simulation from
19 Entrance Island down through the grounding site and, in
20 addition, make other scenarios for different rudder angles
21 at different points along the trajectory.

22 Q This is for the Exxon Valdez?

23 A That's right.

24 Q Now, can you tell us briefly what your
25 educational background is?

1 A I have a Bachelor in physics from the University
2 of Illinois and a Masters in electrical engineering in the
3 Department of Electrophysics from the Brooklyn Polytechnic
4 Institute.

5 Q Can you give us a brief description of your
6 employment background, please?

7 A Well, I started working with the Sperry Gyroscope
8 Company in New York. I started as an associate engineer,
9 doing work in radar systems. And by 1960, I was promoted
10 to senior engineer, and continued work in electronic
11 counter measures, which is -- means for countering radars
12 that may be tracking the aircraft.

13 Q This is for the Department of -- as a
14 subcontractor for the Department of Defense?

15 A This was -- Right.

16 Q That was back in 1960. What have you done since
17 1960?

18 A Well, from 1960 to 1978, I was promoted to
19 research section head, and I was put into an analysis group
20 working on confidential programs for the Navy. And this
21 was also a computer-based system.

22 Q This is for the Navy?

23 A For the Navy, yes.

24 Q When was your first involvement with computers
25 and computer programs?

1 A Well, it started from the very beginning.

2 Q When was that?

3 A From 1960, from 1960 on. All of my experience
4 has been in computer-based systems.

5 Q Now, what did you do after 1978?

6 A I -- from 1978 to 1986, I was assigned to the
7 computer-aided operations research facility at the National
8 Maritime Research Center, which is at King's Point, New
9 York, on the campus of the King's Point Merchant Marine
10 Academy.

11 Q The computer-aided --

12 A -- operations research.

13 Q It's commonly known as CAOR?

14 A Yes. Right.

15 Q What was your assignment to -- were you assigned
16 by Sperry?

17 A Yes, by Sperry. Sperry, while I was there, was
18 merged with Burrows, and has since been called UNISYS.

19 Q What was your function, or what were your duties
20 at CAOR?

21 A Well, I was responsible for making new
22 capabilities to the simulator, the CAOR simulator.

23 Q There was a CAOR simulator in existence when you
24 got there?

25 A Yes.

1 Q And what were you supposed to do?

2 A Make improvements to satisfy the requirements of
3 research.

4 Q What type of improvements?

5 A Well, the -- they wanted to do some low-speed tug
6 work, pushing these large crude carriers so that I had to
7 develop the low speed algorithm.

8 Q When you say they wanted to do low speed
9 analysis, that was on the computer and the simulator
10 _____?

11 A Yes, that's right.

12 Q And what did you do? You wrote a program for
13 that?

14 A For the low speed algorithm, yeah.

15 Q Anything else you did at CAOR?

16 A Well, then also I developed the engine that is
17 presently being used. It's -- it's been written so that it
18 can be changed from a low speed diesel to a steam turbine
19 engine.

20 Q Again, the engine that you're talking about is a
21 computer-simulated engine?

22 A Computer-simulated engine, yes.

23 Q And you wrote the program for that?

24 A Yes.

25 Q Did you do anything else?

1 A There is a -- the simulator has a tug panel that
2 has up to six tugs, and the computer that -- I mean, the
3 program that drives that is a tug program which I designed
4 and developed.

5 Q Anything else?

6 A They wanted to do some maneuvering in that
7 harbor, so that they needed a rudder that would display the
8 kick effect, so that I redesigned the rudder so that it
9 would accomplish this.

10 Q What is the kick effect?

11 A This is a technique used in tight regions where
12 you put the throttle forward for a short time and, at the
13 same time, turn the rudder, so that the ship does not get
14 much way, and at the same time, it gets a tremendous kick
15 from the rudder that it can turn to -- the stern of the
16 ship.

17 Q And this is all done by computer simulation?

18 A Yes, right.

19 Q So, what you're saying is, based on the computer
20 simulation that you've done, you can predict how a vessel
21 would react by the rudder being at a certain angle?

22 A Right. Well, the rudder and engine combination.

23 Q And you've done -- you, yourself, wrote that
24 program?

25 A Yes, I did.

1 Q Can you explain what the CAOR facility is all
2 about? I mean, what is their purpose?

3 A Well, the CAOR facility is a real time
4 simulator. By that, I mean everything runs at the regular
5 time, so that a -- a helmsman and pilot can steer the
6 ship. Now, the -- a full-scale bridge of a heavy ship is
7 built into the simulator in a separate room, and the
8 throttle, telegraph and helm is input into the computer.

9 Q You mean, you actually have a mockup of a bridge
10 at CAOR?

11 A Yes. That includes the helm, the -- the throttle
12 telegraph, radars, collision avoidance equipment, and it
13 has just about everything that a regular tanker --

14 Q Does the CAOR system have in its computers
15 various areas around the world -- simulates the various --

16 A Yes. Well, we have data bases. These have to be
17 made up special for a particular area. We have a data base
18 that is the New York Harbor. We have a data base that is
19 the Panama Canal, _____ region. And I think we have a
20 data base of Valdez during the early years.

21 And we have a -- data bases that can use a
22 picture of the Mississippi outlet canal.

23 Q So, using the real time part with both the CAOR
24 facilities, what you would have is a pilot and a helmsman
25 on this mock-up bridge, and ahead of them, they would have

1 this scene of the area that's being simulated?

2 A Right. The scene is computer generated, and it's
3 synchronized with the position of the ship, so that, as you
4 go under a bridge or something, you see it go up over your
5 head, and as you approach Manhattan Island, you see the
6 buildings on the shore.

7 Q So, what you're saying, in effect, someone
8 standing on this mockup bridge would be seeing what he
9 would see in a simulated form, would be seeing what he
10 would see if he were in the -- out in the harbor.

11 A Yeah, right.

12 Q And the simulation simulates the various
13 maneuvers that the vessel can make?

14 A That's right.

15 Q Okay. Now, is there another part to the CAOR
16 facilities?

17 A Well, there are radar generators that generate
18 the radar picture, so that you can look in the radar and
19 see, actually see, the display of the land masses and so
20 on.

21 Q What are these mock-up bridges and simulations
22 used for?

23 A Well, they're -- while I was there, we were doing
24 work for the National Maritime Administration and for Corps
25 of Engineers, and the work was mainly involved in harbor

1 development or canal development.

2 Q What do you mean by that?

3 A Well, they want to know how much they had to
4 dredge to allow certain sized ships to go in, and they
5 wanted to minimize that dredging as much as they can,
6 because it's very expensive project.

7 Q So in other words, the simulation would show you
8 the depth of the water, and then you would simulate a ship
9 going through it --

10 A Yeah, right

11 Q -- to see if there was sufficient water.

12 A And you have to have the channels a certain width
13 so that it can handle two ships passing.

14 Q Are the real time simulators used for any other
15 purpose?

16 A Yeah. They're used for training and for pilot
17 training, you know, or captain training. I mean, we have a
18 tugs program where we have a tug lashed to a barge and
19 these are used quite often on the East Coast to supply
20 fuels to the ports from -- up along the East Coast.

21 Q So you can simulate that particular scenario --

22 A Right.

23 Q -- in the real time simulator.

24 A And this was used extensively to train pilots. I
25 mean, not pilots, but captains, tug captains.

1 Q Are the facilities used to also train midshipmen
2 at King's Point?

3 A Yes. We had a program while I was there -- I'm
4 not sure it's still in existence -- but every evening, we'd
5 shut the simulator down and change it over for these
6 midshipmen, who would have courses during the night.

7 Q Now, is there another part of the program called
8 a fast time program?

9 A Yes. There's two fast time programs, and these
10 are -- well, in order to run a simulation on the real time
11 system, it might take more than two hours to complete the
12 whole simulation. And --

13 Q In other words, if you were simulating a
14 situation where you were going from Point A to Point B, and
15 it takes two hours in the real time --

16 A Right.

17 Q -- simulation, it would take actually two hours.

18 A Yeah, right. Yeah. But then the fast time
19 simulator is -- it can do the same thing in a matter of a
20 few seconds, so that you can make many runs, and -- but
21 then the ship is controlled by a track line follower, which
22 simulates the action of the helmsman, and the engine can be
23 made to speed up with the ship is in trouble, or else it
24 can be made to speed up at specified times.

25 Q If you were using the fast time simulation to

1 simulate what would take, say, two hours, does the computer
2 go through all the functions that it would go through if
3 you were doing it in real time?

4 A Yes, it's the same program, yes.

5 Q And it makes the same plots as it would in real
6 time?

7 A Uh-huh.

8 Q And whatever effects there would be on the ship
9 in real time would be picked up by the fast-time
10 simulation?

11 A That's right.

12 Q Now, were you the author of the computer programs
13 that are being used now at CAOR?

14 A Yes. I designed the two fast time programs. One
15 fast time program is just a single ship and the other one
16 is two ships, which was used in canal development for the
17 Panama Canal. And the point of this study was to determine
18 how wide the Gaylord cut (?) would have to be widened in
19 order to get two-way passage in the Gaylord cut.
20 Presently, they only allow one-way passage for the large
21 Panamac ships.

22 Q Are the computer simulations, whether they be
23 real time or fast time, used by the industry for various
24 purposes?

25 A Yes. Well, we've had contracts with shipping

1 companies that wanted certain studies to be done, and we've
2 done studies for the Corps of Engineers to determine what
3 sort of dredging was required.

4 Q Have your simulations been used by the National
5 Transportation Safety Board in accident reconstruction?

6 A Yes. We've done that for a number of accidents,
7 but it was a policy of the company not to testify, because
8 they had contracts with the ship owners as well as the
9 Corps of Engineers and Coast Guard.

10 Q Well, let me ask you about that? Have you ever
11 testified before?

12 A No, I never have.

13 Q Is that because of the policy that you've just
14 spoke of?

15 A Yes.

16 Q Have you published any papers on computer
17 simulations?

18 A Yes. I've published two papers that were -- one
19 was for a national conference of -- on simulation, and the
20 other one was on -- for the ship control in a -- in
21 restrictive waters for the Society of Naval Architects.

22 Q The paper that you delivered on simulation, are
23 you talking about vessel, course, speed and direction
24 simulations?

25 A Yes, that's right.

1 Q In that paper, were the practices -- sorry. Let
2 me strike that, and start again.

3 Are the practices discussed in that paper that
4 you delivered the type of practices that you used in
5 simulating --

6 A Yes.

7 Q -- the Exxon Valdez course?

8 A Well, not specifically the Exxon Valdez, but
9 courses of any kind of research project that you would want
10 to run.

11 Q What I'm talking about is the techniques. Were
12 the techniques that you discussed in those papers the same
13 that you used in simulating --

14 A Yeah.

15 Q -- the Exxon Valdez course?

16 A Right.

17 Q Now, you're appearing here as an expert at our
18 request?

19 A Yes.

20 Q Do you have a fee arrangement with the defense?

21 A Well, it's time, and computer time, and time --
22 it's on a time per hour basis for work done from my home,
23 and then during witnessing, it's on a per day basis.

24 Q Have you estimated what your charges would be in
25 this matter?

1 A I can only estimate it at this point, but I think
2 it's something between seven and ten thousand.

3 Q Dollars?

4 A Dollars, yeah.

5 Q Now could you tell us what you did in this
6 particular case to simulate the course, speed and direction
7 of the Exxon Valdez on the evening of March 23rd, going
8 into the morning of March 23rd?

9 A Well, I first had to develop a mathematical model
10 for the Exxon Valdez.

11 Q What do you mean by mathematical model?

12 A Well, this is an equation of motion that relates
13 the mass of the ship and the forces acting on the ship to
14 its motion.

15 Q How did you develop the mathematical model?

16 A Well, the basic model is -- has been developed
17 for some time, but then the model contains constants, or
18 quasi-constant terms, and these constants relate the forces
19 that are generated as the ship maneuvers, and in order to
20 develop these, you can either start from a scale model
21 ship, which is a kind of expensive way of doing it, and you
22 tow the ship through a tow tank and measure forces acting
23 on the ship.

24 Q Well, what type of forces are you referring to?

25 A Well, as the ship makes a turn, it doesn't make a

1 turn like a car. It slides sideways, and that generates a
2 force that causes the ship to turn. And also, as the
3 rudder is extended, it produces more resistance to the flow
4 of water, and so the ship starts to slow down.

5 And these -- you have sets of equations for the
6 X, Y direction and the yaw _____ equation and the fore
7 and aft equation, which all are coupled and give you the
8 dynamics of a moving ship.

9 Q And you say you have a model such as that in the
10 library already?

11 A Yes. But then we need these constants to make it
12 simulate a specific type of ship.

13 Q So what did you do to simulate the Exxon Valdez?

14 A Well, I took a ship that presently is in the CAOR
15 library of ships. This particular ship was a 220,000 ton
16 tanker, and I reduced the length to 945 feet, which is the
17 -- wetted length of the Exxon Valdez.

18 Q What do you mean by wetted length?

19 A Well, the overall length is 965 feet, but then
20 you have an overhang from the bow, and an overhang from the
21 rear, which is not in the water, and the only thing that's
22 important for the dynamics of the ship is the wetted
23 length, so --

24 Q Meaning the length of ship in the water itself?

25 A Right.

1 Q Okay.

2 A And then I reduced the beam to 166 feet, which is
3 the width of the Exxon Valdez, and the draft, which is the
4 depth from the water level to the bottom of the ship. I
5 used 56.3 feet, which was the draft of the Exxon Valdez at
6 the time of the grounding.

7 And I changed --

8 Q Prior to the grounding?

9 A Prior to the grounding.

10 Q All right.

11 A And I changed the mass of the ship to correspond
12 to this reduce draft, and the moment of inertia, which is a
13 term that's similar to mass, only it's for rotation.

14 Q And this is all being done on the computer?

15 A These are all in preparing the file that the
16 computer will use.

17 Q In other words, you're inputting into the
18 computer certain values?

19 A Right, yeah.

20 Q You've taken a model and you've reduced it to
21 match the Exxon Valdez values?

22 A And there's one other --

23 Q Is that right?

24 A That's right.

25 Q Okay. What else did you do?

1 A Then there's one other thing that you have to do
2 in order for the ship to act correctly, is to scale the
3 constants that determine the force acting on the hull, and
4 these are -- can be done in an empirical fashion, using
5 literature, papers that are in the literature of ships.
6 It's -- so if you don't do this correctly, then the ship
7 won't yaw correctly, as it makes the turn.

8 Q Did you review the literature that you're talking
9 about --

10 A Yes.

11 Q -- to make the corrections?

12 A Yes.

13 Q What specifically did you review?

14 A The names of --

15 Q Yes.

16 A It was a Japanese paper by Iramo -- I don't
17 recall all the names.

18 Q Okay. In other words, you took whatever values
19 are discussed in that particular paper, and incorporated
20 them?

21 A Well, they did a -- using ship models, they did a
22 parametric study where you could just about -- and they did
23 it for three classes of ships, the bulk carrier, or crude
24 carrier, and the bulk carrier. And the container carrier.
25 And these are the -- crude carriers are the more blunt

1 ships, so that you can -- and they did it parametrically
2 for different sized ships, so you can pick off your value,
3 based on your shape factor and your length and --

4 Q Did you do that?

5 A Yes.

6 Q And you incorporated it --

7 A And I incorporated it into the -- the file, input
8 file.

9 Q What did you do then?

10 A Then I made a rough track line, using the Exxon
11 Valdez course recorder, and the engine bell ringer, and --

12 Q The data logger, you mean?

13 A A bell -- bell logger, yeah.

14 Q Okay.

15 A And then I ran the ship down this track line, and
16 you get the actual velocity -- the velocity along the chart
17 line does not remain constant. It's continually changing.
18 So once I know how it changed, I can adjust the track line,
19 so that I get the exact proper lengths for the track line.

20 Q What causes these changes in velocity?

21 A Well, as the ship turns -- well, it -- first of
22 all, the throttle may be reduced like it was when it
23 allowed the pilot to disembark from the ship and also --
24 and then there's this engine build-up time, and there's
25 gradual build up of the speed, and also as the ship turns,

1 the resistance of the ship increases, and so it starts to
2 slow down.

3 Q You took all those factors into account?

4 A I took into account the actual velocity that was
5 involved, so that I could determine the correct length for
6 the legs of the trajectory.

7 Q And what was the conclusion of that exercise?

8 A Well, after adjusting things as best I could, I
9 used four fixed points that was taken from the VTS radar
10 and from aboard the ship, and laid those along their
11 coordinates, and tried to get the ship to follow not only
12 the course recorder output, but the position fix output, to
13 generate a course that's similar to the -- or very close to
14 the Exxon Valdez course.

15 Q This is part of the exercise to simulate the
16 movement of the ship?

17 A This is to verify that the ship does, indeed, act
18 like the Exxon Valdez, because if it doesn't, then I can't
19 ever get these things to match.

20 Q After you went through the exercise that you just
21 described, did you -- what did you find?

22 A Well, I found that I could match them very
23 closely, and the heading -- simulated heading was very,
24 very close. You could just about overlay it on the Exxon
25 Valdez course recorder.

1 Q Did you prepare a chart that indicates the
2 results of that particular exercise that you're talking
3 about? Let me show you --

4 (Defendant's Exhibit BC
5 was marked for
6 identification.)

7 BY MR. CHALOS: (Resuming)

8 Q Let me show you what's been marked as Defendant's
9 Exhibit BC for identification, and ask you is this the
10 chart you prepared, indicating how close the simulation
11 came to the actual?

12 A Yes. This is a recorded position --

13 THE COURT: There's a pointer off your right
14 side.

15 THE WITNESS: Oh.

16 This is a recorded value that was taken from the
17 VTS radar, and this is the simulated values.

18 BY MR. CHALOS: (Resuming)

19 Q How close are they?

20 A Well, this is exactly the same. And the position
21 is very slightly different. But then there is an error in
22 the actual position fix. Similarly, this is for the
23 position fix at 053.

24 Q At 10:53 p.m.?

25 A Yeah.

1 Q Okay.

2 A And this is a recorded value, and this is the
3 simulated value.

4 Q And again, they're very, very close?

5 A There's only a ten degree difference.

6 Q Okay. What's the third point you took?

7 A This is 11:39.

8 Q P.M.?

9 A P.M. The recorded values and the simulated
10 values are identical here. The position is just slightly
11 different.

12 Q Okay. And then you --

13 A This is --

14 Q -- took a position at 11:55 p.m. on the 23rd?

15 A Right. This was taken by the third mate, and
16 it's 80 point -- they're identical as far as the heading
17 goes, and the position, longitude position, is only, like,
18 one minute off.

19 Q Okay.

20 After having done this exercise, were you
21 satisfied that your simulated model was the same as the
22 actual Exxon Valdez?

23 A Yes. I think that shows the accuracy. I think
24 it was very similar.

25 Q Now, having satisfied yourself that your model,

1 your computer model, reacted in the same way that the
2 vessel would have acted had it been in similar
3 circumstances, what did you do next?

4 A Well, then I ran the whole transit from Entrance
5 Island down to the point where the turn was -- just before
6 the turn was initiated to avoid Bligh Reef.

7 Q All right. Let me mark --

8 (Defendant's Exhibit BD
9 was marked for
10 identification.)

11 MR. CHALOS: Your Honor, at this time, before I
12 introduce Exhibit BD, I would offer Defendant's Exhibit BC
13 into evidence.

14 MR. COLE: My only objection, if I could just
15 voir dire this briefly?

16 THE COURT: All right.

17 VOIR DIRE EXAMINATION

18 BY MR. COLE:

19 Q Mr. Shizume, the point at 11:55 that you have
20 recorded, do you see that point at 11:55?

21 A Yes.

22 Q That's 180.5, correct? That was the heading at
23 that time?

24 A Yes, that's right.

25 Q And that's based on the assumption that the

1 course, the vessel, was .9 nautical miles off Busby
2 Island. Correct?

3 A The heading is independent of where it is.

4 Q That heading, right there, was used -- it goes
5 through the .9 nautical mile mark, right?

6 A Yeah, okay.

7 Q And if the third mate testified that it was 1.1
8 miles off Busby, then that wouldn't be correct, right
9 there? That wouldn't be the third mate _____?

10 A Well, there is a difference in the -- that long
11 accounts for that.

12 MR. COLE: My only objection is, Your Honor, is
13 to the two stars that indicates that's the third mate's
14 testimony. That was not the third mate's testimony. The
15 third mate's testimony was that they were 1.1 miles off
16 Busby Island, not .9.

17 MR. CHALOS: Well, but he shows that, the
18 latitude -- the longitude, is what he said.

19 MR. COLE: That's not my understanding of the
20 graph.

21 MR. CHALOS: I can ask the witness, Your Honor.

22 THE COURT: Why don't you go ahead, and --

23 DIRECT EXAMINATION -- Resumed

24 BY MR. CHALOS:

25 Q Mr. Shizume, the latitude and longitude that you

1 plotted for -- on this chart, of the vessel's position, as
2 reported by the third mate, it differs from the one that
3 the simulation shows, does it not?

4 A Yes.

5 Q And that would account for the testimony of the
6 third mate saying he was about 1.1 miles off and your
7 simulation showing that the vessel was .9?

8 A Yes.

9 Q And so the numbers that you have here, then, are
10 correct, are they not?

11 A Yes. It's only a tenth of a mile different.

12 MR. COLE: No objection.

13 THE COURT: It's admitted.

14 (Defendant's Exhibit BC
15 was received in evidence.)

16 BY MR. CHALOS: (Resuming)

17 Q Now you mentioned that you drew a track line from
18 Entrance Island down to the point of the initiation of the
19 turn. Is that right?

20 A That's right.

21 Q I show you what's been marked as Exhibit BD and
22 ask you, is this the track line you're referring to?

23 A Yes.

24

25

1 Q What does this represent?

2 A This represents the passage of the ship from
3 Entrance Island, the point where it picked up -- where the
4 pilot disembarked, and then it progressed on to off the
5 Busby --

6 Q Use the pointer.

7 A Yes. Off Busby Island, and then it continued
8 down to this point before any rudder was initiated.

9 Q When you say rudder was initiated, you're talking
10 at what time?

11 A This is 12:01.5.

12 Q A.M.

13 A A.M., right.

14 Q One-and-a-half minutes after midnight.

15 A Right.

16 Q Okay. Is this the simulator track line?

17 A This is the simulated track line.

18 Q And you compared it to the actual track line?

19 A Well, we don't have an actual track line to --
20 but I compared it to the course --

21 Q Recorder?

22 A Exxon Valdez course recorder.

23 Q And what was -- how was the match?

24 A They matched right on top of each other.

25 Q Okay.

1 MR. CHALOS: Your Honor, at this time, I offer
2 Exhibit BD.

3 MR. COLE: No objection.

4 THE COURT: Admitted.

5 (Defendant's Exhibit BD
6 was received in evidence.)

7 BY MR. CHALOS: (Resuming)

8 Q All right. So you've made this simulated track
9 line. What did you do next?

10 A Well, then I ran down the track line -- well,
11 first of all, I looked at an expanded view of the course
12 recorder in the time between 11:00 -- I mean 12:01.5 in
13 this down to -- down to the 12:10. And I have expanded
14 view of that -- do you have that here?

15 Q No. What was the purpose of looking at the
16 expanded view?

17 A That was to determine what sort of rudder was
18 used.

19 Q Are you talking about this one?

20 A No, that's the course recorder. Then there's one
21 with the triangular points and the circular points.

22 Q Well, that's --

23 A Oh -- oh, yeah.

24 Q Are you talking about this document?

25 A That's right.

1 Q Let me have it marked.

2 (Defendant's Exhibit BE
3 was marked for
4 identification.)

5 BY MR. CHALOS: (Resuming)

6 Q Let me show you what's been marked for
7 identification as Exhibit -- Defendant's Exhibit BE. What
8 -- what does this document purport -- or this graph purport
9 to show?

10 A Well, these triangular points are points taken
11 from the Exxon Valdez course recorder, and we notice that
12 there's a sudden change in slope at this point, and that --

13 Q Which point is that?

14 A Well, that's around six -- 12:06.5 up to 12:07.5.

15 Q So the actual course recorder shows a change in
16 slope --

17 A Right.

18 Q -- between those two periods of time?

19 A Right.

20 Q Six-and-a-half minutes after midnight, to
21 seven-and-a-half, you said?

22 A Yes.

23 Q All right.

24 A And then it falls off like this.

25 This is -- this trace here is for a constant 4

1 degrees rudder.

2 MR. CHALOS: Your Honor, may we move it closer to
3 the jury to see it?

4 THE COURT: All right. That cord is plenty long,
5 so you'll be okay.

6 THE WITNESS: This rudder here is for constant 4
7 degrees rudder that shows how they -- the course changes as
8 a function of time.

9 BY MR. CHALOS: (Resuming)

10 Q Well, let's -- before we move on, let's explain
11 to the jury what you have here. Starting over on the
12 righthand side, what do these numbers represent?

13 A These -- this represents a course. 180 degrees,
14 200, 220, 240, 260, 280 degrees. I mean, the direction
15 that the ship is pointing.

16 Q And I notice that you start a -- the various
17 changes at course 180?

18 A Right. Or 0.1.

19 Q Okay. And what time did you start the changes?

20 A 12:01.5.

21 Q And that corresponds with the time that the
22 ship's heading started to change?

23 A Yeah, right.

24 Q Okay. And what -- what does this represent with
25 the triangles, again?

1 A That's -- these are points, triangular -- the
2 triangular points are points taken from the --

3 Q Actual course recorder?

4 A Actual course recorder.

5 Q Okay. What is this line here that's marked 4
6 degrees represent?

7 A That's the course change as a function of time,
8 when a 4 degrees constant rudder is applied.

9 Q Okay. In other words, the 4 degrees is what
10 you're using to compare the actual course?

11 A Right.

12 Q Okay.

13 A And then this is the same degrees for 10 degrees
14 rudder.

15 Q So, in other words, if 10 degrees right rudder
16 was applied at one-and-a-half minutes after midnight, by
17 12:07 --

18 A It would have --

19 Q -- the ship's heading would have been -- what?

20 A Two hundred -- well, 290. No -- yes. Yes. 290.

21 Q Two ninety. In fact, plotting the actual --

22 A The circular points?

23 Q No, plotting the actual course recorded course,
24 what course was this ship on at the same time, 12:07?

25 A It was 108.5 degrees.

1 Q No, at 12:07.

2 A Oh, at 12:07. It was about 250 degrees.

3 Q Okay. So, in other words, there would have been
4 a difference of course change had 10 degrees right rudder
5 been applied at the same time, of something like 40
6 degrees?

7 Okay.

8 What does this dotted line represent?

9 A Well, this is my attempt at simulating the course
10 recorder upward, during this time, and in order to get
11 this, I had to use a left rudder of 6 degrees to make it
12 flatten out, and even at that, I didn't really get it as
13 flat as it is shown there.

14 Q In other words, for you to simulate what the
15 actual course recorder showed at the point around 250
16 degrees, you had to use 6 degrees of left rudder to get the
17 flattening?

18 A Right, yeah.

19 Q Is that what they call counter rudder?

20 A Counter rudder, yes.

21 Q Do you have an opinion as to whether a similar
22 counter rudder was used in the actual maneuvering of the
23 vessel to get this flattening of the course recorder?

24 A Well, if you look on the trajectory plots of the
25 turns, you -- in this region you're still in deep water,

1 about 20 to 30 fathoms, so that the only way you could get
2 such a change in course would be to apply reverse rudder.

3 Q Or counter rudder?

4 A Counter rudder, yeah.

5 Q Now, what is the net rudder that was used
6 starting at 12:01-and-a-half 'til about 12:10 on the basis
7 of the actual and your simulated course recorder?

8 A What was the --

9 Q The net rudder used?

10 A You mean -- by net, you mean the average rudder,
11 or --

12 Q The average, right.

13 A Well, it was something like 4 degrees, but then
14 it occurred at different times, so it was stretched out.

15 Q What do you mean by average rudder?

16 A Well, you -- there's a number of averages but
17 then the average might be _____ these squares that --
18 to the 4 degree line.

19 Q Well, what were -- you're depicting here is the
20 rudder as started at 12:01-and-a-half, the actual heading
21 change, right on through to the time of the grounding.

22 A Yes.

23 Q And what you're saying is that the average rudder
24 during that whole period of time was about 4 degrees?

25 A Well, yeah, but then the fact that 4 degrees

1 didn't stretch out to 12:10 means that the rudder in this
2 -- during this region eased off.

3 Q Meaning it would have been even less?

4 A Yeah, right.

5 Q Now, when we say average of 4 degrees, it doesn't
6 mean that the helmsmen only put 4 degrees right rudder on
7 it the whole time, does it?

8 A No. I -- in fact, I think he was doing a lot of
9 things here, because I couldn't match it with a simple --

10 Q Well, what is your opinion as to what he was
11 doing on the basis of the simulation?

12 A He might have been trying to come to some
13 heading. It looks like he was swinging the rudder back and
14 forth.

15 Q In other words, put 5 degrees on, take it off;
16 put 10 degrees on, take it off?

17 A That's what it looked like.

18 Q Okay. You may return to your seat.

19 A But then, you know, there's many ways you can get
20 the same trace.

21 (Pause)

22 Q Now, having analyzed the various rudder angles
23 that may have been used between 12:01-and-a-half and the
24 grounding, what did you do next?

25 A Well, then I used -- I initiated a turn at 4

1 degrees, and then at the course recorder simulation, and at
2 10 degrees to see just how close I was to the grounding
3 point.

4 Q All right.

5 MR. CHALOS: Let me -- before we leave this
6 subject, Your Honor, before we leave this subject, I would
7 offer Exhibit BE into evidence.

8 MR. COLE: No objection.

9 (Defendant's Exhibit BE
10 was received in evidence.)

11 MR. CHALOS: I think I've already offered BD into
12 evidence, Your Honor, but I can't remember.

13 THE COURT: It's in.

14 MR. CHALOS: It's in? Okay.

15 (Pause)

16 Let me just get something.

17 Okay. Let me mark the face of this Exhibit as
18 Defendant's Exhibit BF.

19 (Defendant's Exhibits BF
20 through BJ were marked for
21 identification.)

22 BY MR. CHALOS: (Resuming)

23 Q Now, sir, did you prepare this particular
24 exhibit?

25 A No. Joe Winer did.

1 Q Mr. Winer prepared it?

2 A Yes. He used data that I logged out for him.

3 Q In other words, the data that he used here is the
4 data that you provided for him?

5 A Yes.

6 Q Have you had an opportunity to review his work
7 here?

8 A Yes, I have.

9 Q And does it -- does this data accurately reflect
10 what you gave to him?

11 A Yes.

12 Q Okay.

13 Now, Exhibit BF is -- is what?

14 A Well, these are turns of various magnitude.

15 Q Starting here.

16 A That's associated at six-and-a-half --

17 Q Wait a minute. Here you _____ a blown-up
18 version --

19 A Oh, yeah.

20 Q -- of the nautical chart in the area of Bligh
21 Reef and Busby Island light?

22 A That's right. And _____ marks the grounding
23 site, yeah.

24 Q It marks the grounding site here?

25 A Uh-huh.

1 Q Okay.

2 Let me show you what we've marked as Exhibit BG.
3 What does Exhibit BG represent?

4 A Well, this is the course recorder simulations
5 that I showed on the other chart, and it shows that it
6 crosses the shallow region and then heads very close to the
7 grounding site.

8 Q This is the simulation as done by the computer?

9 A That's right.

10 Q Okay. So Exhibit BG is the simulated course of
11 this vessel?

12 A That's right.

13 Q To the grounding site. Okay.

14 Now, showing you Exhibit BH, what does that
15 represent?

16 A I think that's -- that's a constant 4 degree
17 rudder applied to the ship at six-and-a-half minutes after
18 passing Busby Island.

19 Q Okay. All the simulations that you've done in
20 this particular Exhibit, or the exhibits that you're
21 marking, start the initiation of the rudder at a
22 minute-and-a-half after?

23 A Right.

24 Q Okay. And using the constant 4 degree right
25 rudder, what does that do?

1 A Well, it looks like he passes a little bit above
2 where the previous one looks a little low, below

3 _____
4 Q Right. So in other words, it brings you to the
5 same grounding site?

6 A Yeah, right.

7 Q So does this verify, this particular exhibit,
8 that -- BF, I'm sorry, BE?

9 A BE?

10 Q Right. In other words, using a 4 degree right
11 rudder brings you to the grounding site?

12 A Uh-huh.

13 Q And that verifies that the average rudder used
14 was about 4 degrees?

15 A It's about 4 degrees, yes.

16 Q Okay.

17 Showing you now what I'm marking as Exhibit BI.
18 What is that?

19 A I think this is 5 degrees. Yeah. This is a 5
20 degree turn, which looks like it would pass without
21 grounding.

22 Q You mean --

23 A (Inaudible) 1 degrees makes the difference of
24 whether you ground or not.

25 Q Well, let's stop there. You're saying if 5

1 degrees of right rudder was used, starting at
2 one-and-a-half minutes after midnight, in your opinion the
3 vessel would not have grounded?

4 A Well, that's what it appears from this data, yes.

5 Q Okay. Let me show you what I'm marking as
6 Exhibit BJ. It's another overlay. What does this
7 represent?

8 A This is a 10 degrees constant rudder, so that
9 this clears the grounding site by a little more than a
10 half-mile.

11 Q So, is it your opinion that if 10 degrees right
12 rudder was used commencing at a minute-and-a-half after
13 midnight, the vessel would have missed Bligh Reef by a half
14 a mile?

15 A Yes.

16 Q That's your opinion?

17 A Yes.

18 Q Okay. Let me just get a couple of more stickers.

19 (Pause)

20 (Defendant's Exhibits BK
21 and BL were marked for
22 identification.)

23 I'm showing you now what I'm marking for
24 identification as Exhibit BK, can you tell me what this
25 overlay represents?

1 A Well, this is a 20 degree rudder, and it clears
2 the grounding site by a large margin.

3 Q In other words, if 20 degrees right rudder was
4 used at a minute-and-a-half after midnight, it would have
5 cleared Bligh Reef by a margin larger than using the 10
6 degrees right?

7 A Yeah. Almost three-quarters of a mile.

8 Q Okay. And I show you now what I'm marking as
9 Exhibit BL. Can you tell me what this overlay represents?

10 A Well, this overlay is when the -- a rudder of 10
11 degrees was held for five minutes, and then a rudder of 20
12 degrees was held for two minutes, and then a rudder was
13 hard over to 35 degrees.

14 Q Okay. Where did you get that information, 10 --

15 A Well, that was --

16 Q -- degrees for five minutes, twenty degrees for
17 two minutes, and then hard right?

18 A Well, that was the testimony of Mr. Cousins.

19 Q And what results did you get from that?

20 A Well, it's not much better than the constant ten
21 degrees, although the ship starts to turn quite fast up
22 here.

23 Q Now, we're showing in an exaggerated way what the
24 ship would have done if it had continued in its turn,
25 right?

1 A Yeah.

2 Q That's not necessarily how this ship would have
3 gone in this particular situation?

4 A No. Probably, as soon as _____ 90 degrees,
5 it would veer off to --

6 Q Okay. In other words, when he gets abeam of
7 Bligh Reef, then this course would take him -- he would
8 straighten his course out to take him back into the --

9 A Yeah.

10 Q -- into the VTS.

11 All right. So in this particular simulation,
12 it's your opinion, then, if as little as 5 degrees right
13 rudder was used at 12:01-and-a-half, the vessel would have
14 probably cleared Bligh Reef?

15 A Probably, yes.

16 Q And if 10 degrees right rudder was used at
17 12:01-and-a-half, he most definitely would have cleared it?

18 A Yes. Right. It would be about half a mile.

19 Q Speak up, please.

20 A If 10 degrees was used, that would be an ample
21 margin of clearance from the grounding site.

22 Q Okay. Did you do any other simulations?

23 A Well, I did a group of simulations when -- if the
24 rudder was initiated at the Busby Island light.

25 Q Okay. Before we get into that --

1 MR. CHALOS: Your Honor, at this time, I would
2 offer Exhibits BF through BL into evidence.

3 MR. COLE: No objection.

4 THE COURT: Admitted.

5 (Defendant's Exhibits BF
6 through BL were received
7 in evidence.)

8 (Pause)

9 MR. CHALOS: Now, let me get some more
10 identification stickers.

11 (Pause)

12 Let me --

13 BY MR. CHALOS: (Resuming)

14 Q Again, did you prepare this particular exhibit?

15 A Yes, I did.

16 Q Well, you didn't prepare this particular exhibit?

17 A Oh. Joe Winer did the actual --

18 Q Again, was it based on information that you
19 supplied to him?

20 A Yes.

21 Q And have you had an opportunity to review what
22 Mr. Winer did?

23 A Yes, I did.

24 Q And is it an accurate representation of the
25 information you provided to him?

1 A Right. That's correct.

2 MR. CHALOS: Let me mark the base chart as
3 Exhibit -- Defendant's Exhibit BM for identification.

4 (Defendant's Exhibits BM
5 through BR were marked for
6 identification.)

7 BY MR. CHALOS: (Resuming)

8 Q Again, that shows the grounding site on expanded
9 version of the nautical chart, am I correct?

10 A That's right.

11 Q Okay.

12 Let me mark as Exhibit BN for identification the
13 first overlay. Can you tell us what that represents?

14 A That's the course recorder simulation of what we
15 did before, on the previous -- and it's initiated at 12:01,
16 at 12:01.

17 Q Okay. This is similar to the previous exhibit,
18 the one --

19 A Yes. Same one.

20 Q Incidentally, what time does your simulation show
21 this vessel going aground?

22 A It looks like it's 12:10.

23 Q About 12:10?

24 A Yeah.

25 Q Okay.

1 Now, let me mark, as the next exhibit for
2 identification, Exhibit BO, the next overlay, and ask you
3 what does this represent?

4 A I think this is a three degree right turn.

5 Q Started when?

6 A Starting at Busby Island.

7 Q At 2355?

8 A 2355. And it clears the grounding site by more
9 than a mile.

10 Q Well, let me see if I understand you. In this
11 particular overlay, you simulated just a three degree
12 rudder being used starting at 2355?

13 A Yeah.

14 Q And how far did it clear Bligh Island? Bligh
15 Reef?

16 A By about -- more than a mile.

17 Q So what you're saying is, if the helmsman just
18 put three degrees of right rudder starting at 2355, the
19 vessel would have cleared Bligh Reef by over a mile?

20 A Yes.

21 Q Let me show you the next overlay, which I'll mark
22 as Exhibit BP, and ask you, what does this represent?

23 A Well, this was when a constant rudder was applied
24 at Busby Island light, of 4 degrees.

25 Q Okay. If the helmsman applied just 4 degrees of

1 right rudder starting at 2355 abeam of Busby --

2 A That's right.

3 Q -- that would have also cleared Bligh Reef?

4 A Right.

5 Q By what distance, do you estimate?

6 A Oh --

7 Q I have a scale here.

8 A It's a big --

9 (Pause)

10 It's about a mile and a third.

11 Q 1.33 miles?

12 A Yeah.

13 Q Okay.

14 (TAPE CHANGED TO C-3664)

15 Let me show the next overlay, which I'll mark as
16 Defendant's Exhibit BQ and ask you what does this
17 represent?

18 A Well, this is when a constant 5 degrees rudder
19 was applied at 2355.

20 Q And what does that show?

21 A Well, it shows that it misses the -- the --

22 Q Grounding --

23 A -- grounding site by --

24 Q An even greater distance?

25 A Even greater, yeah, almost. A mile-and-a-half,

1 or more.

2 Q And that's just 5 degrees of right rudder?

3 A Right.

4 Q Okay.

5 What does the next overlay represent, which I'll
6 mark as Exhibit BR?

7 A This is the trajectory if 10 degrees of a
8 constant right rudder was applied at 2355. And -- of
9 course, they wouldn't -- he wouldn't hold the rudder that
10 long. He'd probably come off this way.

11 Q Uh-huh. This exaggerated depiction just shows
12 what would have happened if the rudder was held all the way
13 through --

14 A Right.

15 Q Made the complete circle, in other words?

16 A Uh-huh.

17 Q Okay.

18 Using 10 degrees of right rudder -- strike that.

19 If 10 degrees of right rudder were used at 2355,
20 how much would this vessel have missed the grounding site
21 by?

22 A Just about two miles.

23 Q And the last overlay, which I'll mark as BS.

24 (Defendant's Exhibit BS
25 was marked for

1 identification.)

2 BY MR. CHALOS: (Resuming)

3 Q -- represents what?

4 A This is when a 20 degree right rudder was
5 initiated at 2355.

6 Q In other words, BS is an overlay indicating what
7 would have happened if 20 degrees right rudder was used?

8 A Right, yeah.

9 Q Starting at 2355. And that would have missed the
10 grounding site by an even further distance?

11 A Right, more than two miles, yes.

12 Q Okay. Now, I want you to assume for the moment
13 that the turn -- the turns that you're talking about here
14 were not initiated until 2356, or one minute after 2355.
15 Would that have made a significant difference to the
16 distance by which this vessel would have missed Bligh Reef?

17 A Well, it's just essentially moving it down one
18 minute, which would move the lowest curve down here
19 somewhere.

20 Q How much -- how much of a distance are we talking
21 about? A couple of tenths of a mile?

22 A Well, one minute is about -- more than a thousand
23 feet.

24 Q Just about a ship's length?

25 A Yeah, right.

1 Q So in your opinion, if they had started the turn
2 at 2355 -- 2356, that wouldn't significantly alter your
3 opinion as to how far the vessel would have missed Bligh
4 Reef?

5 A No. It would probably just move everything down
6 by about a thousand feet.

7 Q Okay.

8 If the turn were to be started -- the turns were
9 started in this area here, the 5538 fathom mark, would that
10 significantly alter your opinion as to how far the vessel
11 would have missed Bligh Reef?

12 A I think it would still miss by quite a bit.

13 Q Over a mile, if 10 degrees right rudder was used?

14 A Oh, yeah. If 10 degrees (inaudible), even if 3
15 degrees.

16 Q Three degrees being Exhibit BM -- sorry, B -- BO?

17 A Yeah, right.

18 Q Even three degrees would have missed it?

19 A It would move it down to here.

20 Q Yes.

21 A (Inaudible). Swing around it and miss it by a
22 quarter of a mile, half a mile.

23 Q Okay.

24 MR. CHALOS: Your Honor, at this time I offer
25 Exhibits BM through Exhibits BS into evidence.

1 MR. COLE: No objection.

2 THE COURT: Admitted.

3 (Defendant's Exhibits BM
4 through BS were received
5 in evidence.)

6 BY MR. CHALOS: (Resuming)

7 Q Sir, do you have an opinion as to the cause of
8 this grounding?

9 MR. COLE: Objection. Lack of qualifications.
10 Speculation.

11 MR. CHALOS: Well, I'll rephrase it, Your Honor.

12 BY MR. CHALOS: (Resuming)

13 Q On the basis of the simulations that you've made,
14 do you have an opinion as to the -- the reason for this
15 vessel going aground?

16 A Yeah, I think the problem was that the rudder was
17 initiated late, and also wasn't -- there wasn't enough
18 rudder was used.

19 Q Is that in combination?

20 A Yes, in combination.

21 Q When you say initiated late, you mean at
22 one-and-a-half minutes after midnight?

23 A Right.

24 Q And when you say not enough rudder was used, what
25 do you mean?

1 A Something greater than four should have been
2 used. Something -- an average of greater than four should
3 have been used.

4 Q And it was your opinion that if five degrees
5 right rudder was used at a minute-and-a-half after midnight
6 she would have missed the reef?

7 A It looks like it would miss the reef, yes.

8 MR. CHALOS: I have no further questions, Your
9 Honor.

10 (Pause)

11 MR. COLE: I would like to get (inaudible).

12 THE COURT: While you're getting those exhibits,
13 I think we'll take a break.

14 Ladies and gentlemen, we'll break for about ten
15 or fifteen minutes. Don't discuss the case among
16 yourselves, with anybody else (inaudible).

17 THE CLERK: Please rise. This court stands in
18 recess, subject to call.

19 (A recess was taken from 11:45 a.m. to 12:04
20 p.m.)

21 THE CLERK: This court now resumes its session.

22 THE COURT: Mr. Cole?

23 MR. COLE: Thank you, Your Honor.

24 CROSS EXAMINATION

25 BY MR. COLE:

1 Q Good morning, Mr. Shizume.

2 A Good morning.

3 Q You were instrumental in designing some programs
4 at CAOR that basically simulate the track line of vessels
5 through the water, is that correct?

6 A That's usually _____ process. I don't have
7 a program that does that.

8 Q But the fast track simulators at CAOR can do
9 that, is that correct?

10 A No --

11 Q Develop a track line?

12 A Develop a track line?

13 Q Of a vessel, based on information that's given to
14 them.

15 A If you have rudder information, yes.

16 Q And the reason that we have simulators to do that
17 is because tankers and other ships don't have little black
18 boxes like in airplanes, right?

19 A Right.

20 Q And those black boxes in airplanes save a lot of
21 valuable information that people can use to reconstruct the
22 flight patterns of airplanes, correct?

23 A That's right.

24 Q And basically, on a tanker, all you have is just
25 the maneuvering characteristics and the course recorder and

1 the bell logger, correct?

2 A Yeah, but the course recorder and bell logger
3 tells you a lot.

4 Q Sure.

5 Now, it would always be better to have a
6 demonstration with the real vessel, but that's not very
7 practical in a lot of cases, right.

8 A Right.

9 Q And we know what they've done a CAOR is design
10 smaller models of these vessels in their computer programs,
11 their library, and used those to simulate track lines.
12 Correct?

13 A Why do you say smaller? They're full sized.

14 Q Full sized. Okay. Full sized. But they use
15 them to simulate track lines of vessels, right?

16 A They don't -- the main purpose of the math model
17 is to simulate the dynamics of the ship, not the track
18 line.

19 Q Now, the people at CAOR did this simulation?

20 A Yes.

21 Q Right?

22 A Yes.

23 Q And they put -- did a report, and it came out in
24 December 1989, correct?

25 And they plugged in all the numbers that you

1 talked about to simulate the dynamics of the Exxon Valdez,
2 correct?

3 A That's true.

4 Q And they did that back in July of last year,
5 correct?

6 A I don't know whether it was July, but yes.

7 Q It was some time ago. Correct?

8 A What?

9 Q It was some time ago, correct?

10 A Yes.

11 Q And so what you did is that you went to the CAOR
12 computer and you just verified the information that they
13 did --

14 A Yes.

15 Q -- that they had inputted?

16 A Well, I made sure that there was no errors.

17 Q Did you make any changes in what they had
18 inputted?

19 A No, I couldn't --

20 Q So basically, your simulation is that you put in
21 the same information that they had put in to the computer,
22 and you put it into their same computer, and you came out
23 with the same results that they had come out with?

24 A No. We did different scenarios.

25 Q That's right. You did a couple of more scenarios

1 if the vessel had turned at a certain point, correct?

2 A And also, we simulated the course recorder.

3 Q Okay.

4 Now, the CAOR input -- it assumed a vessel of 220
5 tons, correct?

6 A No. It was derived from a vessel of 220 tons.

7 Q Okay, it was derived.

8 A 220,000 tons.

9 Q 220,000 tons. The Exxon Valdez is a vessel of
10 209,000 tons. Correct?

11 A Yes.

12 Q And the CAOR report used certain turning
13 characteristics, did tests of the simulator, of the
14 simulated vessel, and got certain measurements as to the
15 turning characteristics, correct?

16 A That's right.

17 Q And they compared those to the turning
18 characteristics of the Exxon Valdez? Correct?

19 A Well, they used the chart in the bridge from the
20 Exxon Valdez to tune up the rudder.

21 Q And the difference between the post -- there was
22 some difference between the posted turning characteristics
23 of the Exxon Valdez and the simulated characteristics, as
24 were designed by CAOR, correct?

25 A Yeah, but they were within the measurement error

1 of the trial data.

2 Q Well the measurement error was -- in -- for
3 instance, in a turn --

4 A Nautical miles. One-tenth of a nautical mile was
5 the accuracy.

6 Q Within one-tenth, but the times were different in
7 what it took to turn a vessel, correct?

8 A There was a small difference, yes.

9 Q Well at full sea speed with a 35 degree rudder,
10 fully laden, it took 168 minutes for the Exxon Valdez to
11 make a starboard turn, and it took 151 for the simulated,
12 correct? Does that sound about right?

13 A That sounds about right.

14 Q So there was a difference of about 10 percent?

15 A For that particular turn, yes.

16 Q And at full speed, with a 35 degree rudder, to do
17 a 90-degree turn, the posted, on the Exxon Valdez, was 336
18 seconds, while the simulated was 305 seconds. Correct?

19 A Yes.

20 Q So that was, again, another difference of about
21 10 percent?

22 A Right.

23 Q And, in each case, the Exxon Valdez turned slower
24 than the simulator, according to the posted measurements,
25 correct?

1 A Yes.

2 Q Now, the CAOR project also made some assumptions
3 in this case, when they were inputting data, correct?

4 A What assumptions?

5 Q Well, they assumed --

6 THE COURT: Excuse me, just a minute. Would you
7 take that microphone off and put it on your righthand
8 lapel, up a little higher, because it is difficult to hear
9 you. Thank you.

10 BY MR. COLE: (Resuming)

11 Q Well, number one, they assumed that the vessel,
12 the simulated vessel, was fully laden, correct?

13 A No, they did not.

14 Q They did not?

15 A No. The simulated vessel mass was reduced and
16 the draft was reduced.

17 Q Oh, I see. Well, let me rephrase that. They
18 assumed that the vessel maneuvered at the same as a fully
19 laden tanker, correct?

20 A Well, that's from experience. We know that the
21 turning radius of the ship is largely determined on the
22 length and not the loading.

23 Q But it is a little bit dependent on it?

24 A No.

25 Q Not at all?

1 A You can't detect it.

2 Q You can't detect it at all. Okay. So it
3 wouldn't make any difference if it was half laden or fully
4 laden as far as the turning characteristics?

5 A Yes. Well, the acceleration would change.

6 Q The acceleration would change. Well, that would
7 affect the -- it would be slower if it was fully laden, is
8 that correct?

9 A It accelerated slower, yes.

10 Q And that wasn't taken into consideration?

11 A It was.

12 Q It was in this --

13 A Because we changed the mass.

14 Q Now, the CAOR report also didn't constrain
15 themselves to the bell logger notations, did they?

16 A No, they varied from that. And I think maybe
17 because they were using a track follower which is much
18 better than the pilot, because it updates every half
19 second, so the track is very straight.

20 Q But they assume that the RPMs have to go over 55
21 RPMs during the course of the transit, correct?

22 A Yeah.

23 Q But that would mean that it would have had to go
24 up to sea speed. That 55 RPMs is just full maneuvering
25 speed, correct?

1 A Yeah.

2 Q And they also disregarded a number of the -- they
3 disregarded several of the fixes that were on the map?

4 A Because they were inconsistent with other
5 measurements.

6 Q Now, when you said that the -- that you used the
7 180.5 track --

8 A Yes.

9 Q Were you assuming that the vessel's speed was
10 11.74, or that it was 12.3?

11 A I'd have to look at the -- do you have that?

12 (Pause)

13 Q I'll give you this.

14 (Pause)

15 A No, I don't think it's in there.

16 Q How about the CAOR report?

17 A No. I need the transit log.

18 Q Oh, okay.

19 (Pause)

20 A Oh, what -- what was the question?

21 Q When the vessel was travelling -- when you were
22 making your calculations as to the rate of turn, 5 degree,
23 10 degree, 20 degree, were you assuming that the vessel was
24 travelling at 11.74, or 12.3 knots?

25 A From Busby Island, or from --

1 Q Yes, from Busby.

2 (Pause)

3 A Well, it started at 19.7 feet per second. What
4 is that?

5 Q You don't remember right offhand, whether it was
6 11.74 or 12.3?

7 A Knots? I would have to change that into knots.

8 Q Okay. Well, we can go -- we have other things.

9 Now, you said that you took into consideration
10 the 1255 -- or 1155 plot? That was one of the four fixes
11 that you used?

12 A Yes.

13 Q If I showed you a copy of the 1155 plot, do you
14 recognize that at all?

15 (Pause)

16 Well, how about that? If I told you that that is
17 the plot that the third mate made --

18 A Yeah, right.

19 Q -- at 2355, does that seem consistent with the --
20 how you understand the evidence to go?

21 A Yeah.

22 Q Okay. Now, at 1155, which -- this is your
23 simulated track line, right?

24 A Yes.

25 Q At 1155, your blue line runs to the light of the

1 8472 mark, right?

2 A Uh-huh.

3 Q Mr. Cousins' 2355 runs to the left of that mark,
4 doesn't it?

5 (Pause)

6 A Yes. Well, he estimated 10 -- 1.1, that's why.

7 Q But that -- the simulated model is .9.

8 A Right.

9 Q Now, if a vessel -- if you move the track line
10 over to here -- is the turn required to get from here to
11 here to here greater or less than the turn required here?

12 MR. CHALOS: Your Honor, I object, unless Mr.
13 Cole can put a distance between the two lines. Are we
14 talking about a mile-and-a-half, .2 of a --

15 MR. COLE: Two-tenths.

16 THE WITNESS: Two-tenths of a mile. That's 600
17 feet.

18 BY MR. COLE: (Resuming)

19 Q Six hundred feet.

20 A Well, I mean -- I don't think his looked that
21 much different. I mean, you got to -- you don't have it --
22 at most, you're right at the 90 degree point, and there's
23 not going to be much difference with this one at the 90
24 degree point.

25 Q Well, let's assume that my drawing is a little

1 bit off. But let's assume -- let's assume that there's two
2 models difference.

3 A Well, then there will be a difference.

4 Q Does it take a greater turn to get from here to
5 here, than say, from here to there?

6 A Well, you -- if you were two miles off, you'd
7 start coming off.

8 Q Right. Well, let's assume you end up in the same
9 spot, right there.

10 A Then you're not using a constant rudder.

11 Q It would really take a shorter turn to get from
12 here to there than it would to get from here to there,
13 wouldn't it?

14 A A shorter turn, or less rudder?

15 Q More rudder, to get from there to there than from
16 there to there.

17 A No, I don't think it would --

18 Q It wouldn't change it at all.

19 A The difference would be like a few feet, because
20 you're at the tangent point of the curve.

21 Q It wouldn't change it at all?

22 A It would change it by a few feet.

23 Q Well, would it be a greater rudder that you would
24 need to get there, or lesser rudder?

25 A You'd need less rudder.

1 Q Now, the other thing that the CAOR didn't take
2 into consideration is the shoal rudder, correct?

3 A That's right.

4 Q And that makes a vessel turn left also, correct?

5 A Right.

6 Q And your calculations show the simulated track
7 going over shoal water for a period of time?

8 A Yes. But we didn't know that, until quite some
9 time later.

10 Q But it would have made it more accurate if it had
11 used the shoal water --

12 A Right.

13 Q -- for that period of time?

14 A Yeah, right. But it would need a good survey map
15 to verify that.

16 Q Now, Mr. Chalos asked you to do simulations
17 assuming that the turn began at 12:01-and-a-half, correct?

18 A 12:01-and-a-half, yes.

19 Q Did he --

20 A No. That's what the -- the transit indicated.

21 Q Right. But then he asked you to run simulations
22 of different turns.

23 A Oh, yeah, right.

24 Q At 12:01, right. Correct?

25 A Right.

1 Q Did he ask you to do any simulations of, say, if
2 the vessel had turned at 12:03 or 12:04?

3 A No.

4 Q What would have happened if this vessel had not
5 turned until 12:03? Where would it --

6 A Well, it would probably hit the -- the grounding
7 site.

8 Q If it had not turned until a minute or two
9 later --

10 A Well, then it might have missed the grounding
11 site altogether.

12 Q Okay, but the depths got shallower down here,
13 right?

14 A Uh-huh.

15 Q So if they had waited until 12:02 or 12:03, there
16 wouldn't have been any turn that would have allowed them to
17 miss Bligh Reef, would they?

18 A Right.

19 Q And that's the same all the way down here,
20 correct?

21 A Yes. Pretty shallow.

22 (Pause)

23 Q Now, Mr. Chalos asked you to do a number of
24 simulations with the turn at Busby, correct? And that
25 would have been three degrees? Was that _____?

1 A Three, four.

2 Q Three degrees?

3 A Five and ten and twenty.

4 Q Four degrees. Five degrees. Ten degrees.

5 A And 20 degrees.

6 Q And 20 degrees. Is that right?

7 A Uh-huh.

8 Q Okay.

9 (Pause)

10 _____ about a half.

11 Now, I think you testified that if the turn at
12 Busby had begun at 11:55 and it was a three degree,
13 constant three degree turn, this would have missed Bligh
14 Reef?

15 A Yeah.

16 Q Well, if Captain Hazelwood had been on the bridge
17 at 11:55 and made sure that a three degree rudder angle was
18 -- as ordered -- was executed, he would have missed Bligh
19 Reef, right?

20 MR. CHALOS: Objection, Your Honor. It's
21 independent whether Captain Hazelwood was on there or a
22 chimpanzee.

23 THE COURT: It's argumentative, Mr. Cole.

24 BY MR. COLE: (Resuming)

25 Q And at 4 degrees it would have missed it also,

1 correct?

2 A Yeah.

3 Q At 5 degrees it would have missed it, right?

4 At 10 degrees it would have missed it?

5 A Right.

6 Q And at 20 degrees it would have missed it, right?

7 A Yes.

8 Q Now, at 20 degrees at 12:02, way down here --

9 A 12:02?

10 (Pause)

11 Q Way down here, at 20 degrees, it would have
12 missed it?

13 A Yeah, right.

14 Q So we can assume that it would have missed it all
15 the way from here to here, right?

16 A Oh, yeah. Right.

17 Q At 10 degrees would it have missed it, if he had
18 turned at 12:02?

19 A Yeah.

20 Q So we can assume he would have missed it all here
21 too, right?

22 (Pause)

23 How about at 5 degrees? Would it have missed it?

24 A It looks like it would miss.

25 Q Can we assume that it would have hit at all

1 here?

2 A Yes.

3 Q It would have missed at all the rest?

4 (Pause)

5 How about at 4 degrees?

6 A Well, it hit.

7 Q It hit at four. And we can assume it would have
8 hit at three also, right?

9 A Right.

10 Q You told -- you indicated that a 4 degree turn at
11 11:56 it would have been okay, right?

12 A Uh-huh.

13 Q And a three degree turn? It would have been
14 okay?

15 A Yeah, I think so.

16 Q Now, these last ones, are you sure about any of
17 those, or should we just --

18 A Well, I'd have to move the --

19 Q -- _____ question marks?

20 A -- with a pair of dividers, move it down.

21 Q Well, would you feel more comfortable just
22 putting question marks there, or do you think it would have
23 made it at 11:57, at three and four degrees?

24 A 11:57, it probably would make it.

25 Q Okay. We'll put "P" for probably. And four?

1 A Yeah.

2 Q Made it?

3 A Made it.

4 Q And 11:58?

5 A I think four would make it, but not --

6 Q P?

7 A -- three.

8 Q And question marks here?

9 A Yeah.

10 Q So under all those scenarios where there's a Y,
11 if the ship had kept on that course, it would have made it
12 by Bligh Reef? Is that what you're saying?

13 A Yeah.

14 Q Now, I'd like you to take a look at this
15 diagram. And if I told you that this green part
16 represented ice -- can you see that?

17 A Yeah.

18 Q And that is right around the 84 and the 72 fathom
19 mark? Do you see that? And that's represented by that 84
20 and that 72, right?

21 A Yeah, I guess so.

22 Q All these turns that you've talked about in your
23 drawing right here, when that's corrected would have ended
24 up in the ice, wouldn't they?

25 A Well, if that's where the ice was, yes.

1 Q So in all your scenarios, the vessel would have
2 missed the reef, but it still might have hit the ice?

3 A Yeah.

4 Q So basically, you started your simulation at
5 Berth 5, off of the Port of Valdez, correct?

6 A At -- where?

7 Q Berth 5, at the 720 or the 920?

8 A Yeah.

9 Q Position marks?

10 A Uh-huh.

11 Q And you ended up on Bligh Reef. Is that correct?

12 A Yes.

13 Q And basically, what your scenarios have shown is
14 that, had someone responsible been on the bridge, this
15 wouldn't have happened?

16 MR. CHALOS: I object, Your Honor.
17 Argumentative.

18 THE COURT: That's right, Mr. Cole.

19 BY MR. COLE: (Resuming)

20 Q Well, you, in fact, were fairly surprised when
21 you charted this and saw that this vessel had not turned
22 until 12:01, correct?

23 A Well, I -- well, I --

24 MR. CHALOS: I object. I object. There's no
25 foundation for that question.

1 THE COURT: The objection is to foundation. Go
2 ahead and lay a foundation.

3 BY MR. COLE: (Resuming)

4 Q When you charted this, and you saw that this
5 vessel had not turned until 12:01, you were surprised,
6 weren't you?

7 A I was surprised, because I knew a four degree
8 rudder was going to be attempted. That was my surprise.
9 Because I knew that the new run would be a four degree
10 rudder run, and I knew it was going to hit.

11 Q Well, you were also surprised about the fact that
12 it had taken so long to respond -- six-and-a-half minutes
13 -- in a very obviously dangerous area, without any
14 rudder _____ --

15 MR. CHALOS: Objection, Your Honor. It's
16 argumentative. There's no foundation. And I think it's
17 irrelevant, whether this witness might have been surprised.

18 THE COURT: Objection as to relevance sustained,
19 Mr. Cole.

20 BY MR. COLE: (Resuming)

21 Q No turn happened until six-and-a-half minutes
22 after the vessel went by Busby, correct?

23 A Right.

24 Q Thank you.

25 MR. COLE: I have nothing further.

1 MR. CHALOS: Would you like some water, Mr.
2 Shizume?

3 THE WITNESS: Yes.

4 REDIRECT EXAMINATION

5 BY MR. CHALOS:

6 Q Sir, with respect to the CAOR information, before
7 you started to do your simulations, did you verify the CAOR
8 information?

9 A Yes, I did.

10 Q Did you assure yourself that the information was
11 correct?

12 A Yes.

13 Q Did you run and verify the information yourself
14 on the computer?

15 A I did.

16 Q Now, Mr. Cole asked you if the model that you
17 used was a 220,000 dead weight ton tanker?

18 A It was scaled from a 221.

19 Q In other words, you brought it down from 209,000
20 tons --

21 A Right.

22 Q -- to represent the Exxon Valdez?

23 A Right.

24 Q Now, Mr. Cole asked you some questions about the
25 maneuvering characteristics that were simulated as opposed

1 to what was posted, and he brought up some differences.

2 How would you characterize the differences?

3 A Well, I mean, those were extreme rudder
4 conditions.

5 Q Meaning hard right or hard left?

6 A Right.

7 Q And your simulations, except for one, doesn't
8 take hard right or hard left?

9 MR. COLE: Objection, leading.

10 BY MR. CHALOS: (Resuming)

11 Q Go ahead.

12 A That's right.

13 THE COURT: Objection overruled. Go ahead. He
14 can answer that.

15 BY MR. CHALOS: (Resuming)

16 Q Okay.

17 Were the differences that were noted in the hard
18 right or hard left condition within the acceptable error
19 ranges?

20 A Yes.

21 Q Did they in any way -- did those differences in
22 any way affect your simulations?

23 A I don't believe so.

24 Q Now, Mr. Cole asked you a question about the full
25 sea speed. Did your simulation take into account the

1 actual revolutions per minute that the engine was being run
2 at at any particular time?

3 A Yeah.

4 Q So if you looked -- let's say at 11:30, whatever
5 RPMs the engine was doing at that time, that's what your
6 simulation would show?

7 A Yes.

8 Q Would take into account?

9 A Yes.

10 Q You're taking 11:30 at a point in time, and if
11 you looked, let's say, at 12:05 a.m., your simulation would
12 take into account whatever RPMs were being used at that
13 time?

14 A Well, yeah, okay. But the actual RPM, that was
15 written on the bell logger --

16 Q Right.

17 A -- there was no indication at what time that was
18 taken.

19 Q But your computer is geared to take into account
20 the fact that the engine is loading up, the program is
21 loading up?

22 A Yes.

23 Q Okay. Now, Mr. Cole asked you about the
24 difference in the fix between what Mr. Cousins showed on
25 the chart, of being 1.1 miles off Busby, and your

1 simulation being .9. Sir, would the difference of
2 two-tenths of a mile affect, in any way, your simulation?

3 A It would just move everything over by two-tenths
4 of a mile, which --

5 Q You mean over laterally?

6 A Yeah, right. And since it's flat -- I mean, it's
7 at 90 degrees, it probably wouldn't make much difference at
8 all.

9 Q It certainly wouldn't affect the distance by
10 which Bligh Reef would have been missed in any one of these
11 scenarios, would it?

12 A No. I don't believe so.

13 Q Now, Mr. Cole asked you about the shoal water, or
14 shallow water, not being taken into account by CAOR when
15 they ran the program initially.

16 A Yeah.

17 Q What we're talking about is the last minute
18 before this vessel ran aground, are we not?

19 A Yeah, right.

20 Q So if there were any error, it would have been in
21 that very last minute?

22 A Yeah.

23 Q Do you -- do you have an opinion as to whether
24 any --

25 A Well, I don't think the ship will respond to

1 something that occurs only for a minute. It's got so much
2 momentum that you probably won't see the difference in the
3 track.

4 Q Well, my question is, would it have made any
5 difference in any of the simulations that missed Bligh
6 Reef?

7 A Well, those simulations that missed it were in
8 deep water.

9 Q So they wouldn't have been affected at all?

10 A Right.

11 Q We're only talking, then, about those simulations
12 that show the vessel going aground?

13 A Right.

14 Q And we're only talking about the very last
15 minute?

16 A Yeah.

17 Q Now, Mr. Cole asked you a hypothetical as to the
18 turns starting at 12:03 or 12:04. Do you remember that?

19 A Yes.

20 Q And he asked if you did any simulations for
21 that. In fact the course recorder indicates that the
22 vessel started turning at 12:01-and-a-half.

23 A Right.

24 Q Mr. Cole also asked you about what the -- may
25 have been seen in terms of ice that particular night. You

1 don't have any firsthand knowledge of that do you?

2 A No, I don't.

3 MR. CHALOS: I have no further questions.

4 RE CROSS EXAMINATION

5 BY MR. COLE:

6 Q Essentially, Mr. Shizume, this is your best
7 attempt at trying to simulate the Exxon Valdez track line
8 that evening, the 23rd -- 24th. Correct?

9 A Uh-huh.

10 Q And it's not perfect, and it's not totally
11 accurate?

12 A Well, there's a small error for everything.

13 Q If the vessel didn't start turning --

14 MR. COLE: No. I'll withdraw that. Nothing
15 further.

16 MR. CHALOS: Just one quick question, Your Honor.

17 FURTHER REDIRECT EXAMINATION

18 Q Mr. Shizume, when you say there's a small error
19 for everything, are you talking about everything in life?

20 A Yeah. Everything that requires a measurement,
21 there's an error. There's an error in the position fixes.
22 there's an error -- small error -- in the ship, because
23 it's -- but then you won't see it in a two-hour scenario.
24 You'd probably have to let it run twelve hours to see the
25 difference.

1 Q Well, in any event, whatever might be involved
2 here, were they within the accepted tolerance, accepted by
3 your community?

4 A Yeah. Right.

5 Q So --

6 A In fact, it's very -- very -- much better than
7 what we normally get.

8 MR. CHALOS: No further questions.

9 THE COURT: May the witness be excused?

10 MR. COLE: Yes.

11 THE COURT: You're excused, sir.

12 (The witness was excused.)

13 THE COURT: You may call your next witness.

14 MR. CHALOS: At this time, Your Honor, the
15 defense calls Joseph Winer.

16 Whereupon,

17 JOSEPH WINER

18 called as a witness by counsel for the Defendant, and
19 having been duly sworn by the Clerk, was examined and
20 testified as follows:

21 THE CLERK: Sir, would you please state your full
22 name, and spell your last name?

23 THE WITNESS: Certainly. My name is Joseph
24 Winer, W-i-n-e-r.

25

1 Q Well, in any event, whatever might be involved
2 here, were they within the accepted tolerance, accepted by
3 your community?

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22 name, and spell your last name?

23 THE WITNESS: Certainly. My name is Joseph
24 Winer, W-i-n-e-r.

25

1 THE CLERK: And your current mailing address,
2 sir?

3 THE WITNESS: Kingsland Road, Boonton --
4 B-o-o-n-t-o-n -- New Jersey, 07005.

5 THE CLERK: And your current occupation?

6 THE COURT: I'm a consultant, a marine surveyor,
7 and I also perform, at times, as an arbitrator.

8 THE CLERK: Thank you.

9 DIRECT EXAMINATION

10 BY MR. CHALOS:

11 Q Good afternoon, Mr. Winer.

12 What does a marine surveyor and consultant do?

13 A A marine surveyor and consultant performs for
14 owners, charterers, underwriters, law firms, on behalf of
15 the owner or the charterer, P&I clubs and insurance
16 companies with respect to vessel condition, with respect to
17 casualties, with respect to purchase and sale of ships, as
18 well as operation of ships.

19 Q Well, what do you mean by owner or charterer?

20 A Well, the owner being the person who actually
21 owns the ship, who, at times, charters it out to some
22 business person who charters the ship for his use, for his
23 company, or to subcharter it.

24 Q And what's a P&I club?

25 A A P&I club is that type of insurance which is

1 called protection and indemnity, which covers risks outside
2 of the ordinary hull and machinery policy, such as third
3 party injury, accident, pollution, damage to structures. I
4 do a substantial amount of work for that type of club.

5 Q Now, what were you asked to do in this particular
6 case?

7 A There were three facets to my assignment. The
8 first was to attend the survey -- a survey of the vessel in
9 dry dock at San Diego, to make an overall examination of
10 the ship, which I did, and I did that in the company of the
11 attorney and some representatives of the owner. We
12 examined the decks, forecastle, the quarters, the
13 wheelhouse, engine room, the auxiliary machinery spaces,
14 the outside of the ship, including the propeller, the
15 rudder, and then we got to the bottom damage portion where
16 I was assigned to examine and develop an opinion as to the
17 cause and sequence of that bottom damage.

18 Along with that, I was asked to take photographs,
19 which I did. That was my first assignment.

20 The second assignment was to take into account
21 some of the materials supplied by Mr. Peter Shizume with
22 respect to his simulation, and to prepare exhibits based on
23 the data in that simulation to show the course of the ship,
24 the track of the ship, along with -- and overlays to show
25 precisely when and where the ship was at different times.

1 The third part of my assignment was to make a
2 basic review of the machinery on that ship to determine
3 what thrust could be provided at various propeller speeds
4 in the interests of could it or could it get off the reef,
5 based on how much thrust could be provided by the ship's
6 machinery.

7 Q Would you tell us a little bit about your
8 educational background, please?

9 A Certainly. I did my undergraduate work at
10 Stephens Institute in Hoboken, New Jersey, and I graduated
11 there in 1944 with a degree of mechanical engineer. My
12 subsequent education, also at Stephens, was to receive a
13 certificate in nuclear engineering in 1957, and then --

14 Q What was that -- what was that for?

15 A That was in preparation for the company for whom
16 I then was employed, the American President Lines. We were
17 looking forward to operating and managing the nuclear ship,
18 Savannah, and I was part of the nuclear team for APL.

19 After that, I attended night school at Stephens
20 Institute during the years 1957 through '63, and received
21 my Master of Science in nautical engineering, also at
22 Stephens, in that year.

23 Q Did you hold any Coast Guard issued licenses?

24 A Yes, I do.

25 Q What do you hold?

1 A The license I hold is Chief Engineer Steam,
2 Unlimited Horsepower. That license was issued to me
3 originally in 1947 and the issue number 912 is currently
4 valid and expires, subject to renewal, of course, in 1992.
5 It's valid.

6 Q Did you hold any other licenses before you got
7 your Chief Engineers license?

8 A Yes. After college, I sailed in the unlicensed
9 crew of various tanker companies. One was the Hillcon
10 Steamship Company. And then I sailed for Gulf Oil Company.
11 I sailed as wiper, fireman --

12 Q What is a wiper?

13 A A wiper is sort of like a -- a little below a
14 janitor. You cleaned up, you emptied waste baskets, you
15 made beds, you wire brushes the floor plates, you emptied
16 the garbage in the engine room.

17 Then you worked your way up to fireman, where you
18 took care of firing the boilers; and oiler, where you took
19 care of oiling the machinery. I worked my way up to pump
20 man, again on tankers for Gulf Oil, where you took care of
21 the pump room and the cargo handling machinery.

22 I then sat for my original third assistant's
23 license, which I received in 1945, subsequent to which I
24 received my second assistant's license, first assistant's
25 license, and I got my Chief Engineer's license in 1947.

1 Q All right. You sailed as a Chief Engineer?

2 A Yes, I did. I sailed for American President
3 Lines and Around-the-World Liner Service on one of their
4 new, post-war ships, what they refer to as a C-4 steamship,
5 and we were on the around-the-world service. I sailed for
6 them as Chief Engineer, subsequent to which I sailed for a
7 company which was called Lochenbach line. I sailed for
8 them for a few years, and I came -- I ceased my seagoing
9 career in 1950.

10 Q You were going to say you came ashore?

11 A Yes, I did.

12 Q When did you come ashore?

13 A I came ashore in July 1950.

14 Q And what -- can you give us a brief history of
15 your employment background since 1950?

16 A Certainly. In 1950, I came ashore, again for
17 American President lines as port engineer, and within a
18 year, I was promoted to superintendent engineer of the
19 Atlantic, which gave me the territory of Europe and the
20 East Coast of the United States for a vessel, maintenance
21 repair, surveys, damage surveys, survey repairs, and things
22 to do with spare parts and the engine room crew.

23 I stayed in that position for about 20 years, up
24 to 1969 or 1970.

25 Q What did you do in 1970?

1 A 1970, I was promoted to Operations Manager and
2 General Manager, Atlantic Coast, again, for American
3 President lines.

4 Q What did you do in that capacity?

5 A In that capacity, I was in charge of the
6 operations, the terminal, the ship operations, the ship
7 personnel, and after that, I was promoted to General
8 Manager, Atlantic, which put me in charge of the marketing,
9 subsidy, rates and conferences, sales, marketing -- the
10 entire division.

11 Later, I was promoted in 1971 to '73, I served as
12 Vice President, Atlantic for American President lines.

13 Q What did you do after 1973?

14 A After 1973, I left the steamship company after
15 almost thirty years, and went to work for Hudson
16 Engineering Company, a ship repair and general structural
17 fabrication company. I was President of Hudson
18 Engineering.

19 Q How long did you stay there?

20 A I stayed there for three years with Hudson, and
21 with Hudson's brother companies. There was Heat Exchanger
22 Engineering Company, Jefferson Electric Company, Perth
23 Amboy Dry Dock, and then later, we merged with a firm
24 called Cornell and Underhill, and I assumed the position of
25 Chairman of the Board for Cornell and Underhill at that

1 time.

2 Q When did you leave that job?

3 A I left that job in 1976.

4 Q What did you do after that?

5 A After that, I went out on my own, started my own
6 business the same as I'm doing now, as a marine surveyor
7 consultant, and later I became active as an arbitrator.

8 Q Do you hold any professional stationary engineer
9 licenses?

10 A The licenses I hold are: PE license, a
11 professional engineer's license, for the states of New York
12 and New Jersey. I received the New Jersey license in 1954;
13 the New York State license in 1956.

14 Q You said that you're also an arbitrator. What
15 type of arbitrations are you involved with?

16 A Most of the arbitrations I'm involved with are
17 Admiralty matters -- that is, of maritime arbitration.
18 Mostly in New York. And I serve as a panel member, and
19 also Chairman, when so appointed.

20 Q What do you mean by chairman?

21 A Under the usual procedure, in most disputes
22 clause, they state that if any dispute arises, it's to be
23 settled by arbitration, structured so that each party
24 appoints an arbitrator, and those appointed arbitrators
25 together appoint a chairman, who is the so-called -- that's

1 called procedural chairman in running the show.

2 Then hearings are scheduled, hearings are held,
3 and arbitration awards and decisions are handed down by
4 those panels.

5 Q And you've acted as chairman from time to time?

6 A Yes, many times, and I'm still active in that
7 capacity.

8 Q Have you -- have you ever testified in court
9 before?

10 A Yes, I have.

11 Q How many times?

12 A I've testified in state and federal courts in New
13 Orleans, in Connecticut, and in New York and Philadelphia
14 17 times. One of those occasions I refer to was when I
15 served as a Special Master under what they call Rule 53 for
16 -- in the Southern District of New York for Judge Mary
17 Johnson Lowe.

18 Under those conditions, under the rule, if the Court
19 finds that there are accounting or technical matters that
20 the Court is unwilling to have to learn for the purpose of
21 resolving a dispute, the Court appoints a Special Master.
22 In this case, the Court asked both counsel to agree upon a
23 Special Master in a very serious collision, insurance,
24 damages, cost allocation case, and I was appointed in that
25 capacity. I worked that through and gave my report to the

1 Court in keeping with the rules.

2 Q Now, have you been qualified as an expert in
3 those instances where you've testified in court?

4 A Yes, I have.

5 Q In all instances?

6 A Yes.

7 Q You've also -- you testify as an expert in
8 arbitrations?

9 A Yes, I do.

10 Q How many times have you done that?

11 A I've testified about fifty times, as an expert in
12 arbitration, and I'm currently active in about ten current
13 cases.

14 Q And in those cases, were you qualified as an
15 expert?

16 A Yes, I was.

17 Q Now, have you ever given testimony as an expert
18 with respect to grounding matters?

19 A Yes, I have.

20 Q On how many occasions?

21 A Oh, about five or seven occasions.

22 Q Were those groundings similar to the grounding of
23 the Exxon Valdez?

24 A Some of them were. Those are the cases where I
25 testified. Actually, in some of my surveying consulting

1 work, I also attended groundings on behalf of, or as
2 assigned by the owner, as assigned by the cargo
3 underwriter, or as assigned by the P&I club.

4 Q And you've actually seen vessels grounded?

5 A Oh, yes. Yes.

6 Q Have you seen vessels grounded on rocks?

7 A Yes.

8 Q How about on coral?

9 A Yes.

10 Q And what was your role in those groundings?

11 A For the most part, my role in those groundings
12 was to examine and make a determination and provide an
13 opinion as to the damages sustained by the grounding, any
14 damages sustained in the efforts to take the ship off the
15 ground, and even, in some cases, damages which pre-existed
16 the incident, which were there before the ship went
17 aground.

18 So it breaks down into about three categories.
19 Some get even more complex. In one case last year, in a
20 ship called the Golden Unity, it was a coral grounding.
21 The ship grounded once, grounded again, and grounded a
22 third time, so that determination was pre-existing due to
23 the grounding, the second grounding, third grounding, and
24 all efforts to refloat.

25 Yes, I've been -- I'm currently active in that.

1 Q All right. Have you, in your career, seen
2 damages of the type sustained by the Exxon Valdez in this
3 grounding?

4 A Yes, I have.

5 Q On how many occasions?

6 A Oh, at least six occasions. The Clara Mersk (PH)
7 was one. The President Harding was the second. The
8 President Garfield was the third. The Arkangelos, up in
9 Canada, was a fourth. The Concho, off Staten Island, was
10 the fifth. And the Golden Unity, currently -- which is
11 currently active in my activity, sixth. I've seen others,
12 too.

13 Q You've been asked to appear here as an expert for
14 the Defendant, have you not?

15 A Yes, I have.

16 Q What is your fee arrangement?

17 A My fee arrangement is on an hourly basis. My fee
18 is \$90.00 an hour.

19 Q Do you know how many hours you've --
20 approximately how many hours you've worked on this matter
21 so far?

22 A Yes, I can.

23 Q How many hours?

24 A About 160 hours.

25 Q So your fee, then, is somewhere around fourteen,

1 fifteen thousand dollars so far?

2 A Yes, it is.

3 Q Okay.

4 Now, let's talk about your trip to San Diego.

5 Can you tell us specifically what you did in San Diego?

6 A Yes. Went down to the shipyard, entered, joined
7 the group, went aboard the ship, and I think our sequence
8 was deck examination first, touring the deck structures,
9 the cargo activity, including the IG system, the access
10 trunks, the deck piping, the winches, the sounding
11 machines.

12 We went up as far as the forecastle, examining
13 the windless and mooring arrangements; came back through
14 the accommodations. We did make a careful inspection of
15 the navigating bridge, the wheelhouse, the chart room, the
16 wings of the bridge, the controls, the radar, the
17 instrumentation in the wheelhouse. I took numerous
18 photographs to indicate that activity. After which, we --

19 Q Let me stop you there, because I want to
20 introduce some photographs into evidence.

21 A Certainly.

22 Q By the way, who was in this group of people that
23 accompanied you?

24 A To the best of my recollection, it was you, Mr.
25 Chalos, Tom Russo, one member of the Coast Guard, Mr.

1 Madson, Ed Hoffman. There were some people from Exxon too,
2 keeping us company.

3 Q Okay. Let me show you what we've marked as --
4 for identification as Defendant's Exhibit AV.

5 A Yes, sir.

6 Q AW.

7 A Yes.

8 Q AX.

9 A Yes.

10 Q AY.

11 A Yes.

12 Q And BW. And ask you, did you take these
13 photographs?

14 A I took some of them. I took -- I took AY and AV.

15 Q Okay. Let's take these two first.

16 What does Exhibit AY represent?

17 A AY is a photograph taken from the port bridge
18 wing, looking to starboard and inboard toward the
19 wheelhouse. It shows the radar mast, ship's name,
20 wheelhouse windows, and it shows these three instruments
21 outside the port wheelhouse door, which are the telegraph,
22 the rudder angle indicator, and the engine RPM indicator.

23 Q Where's -- could you hold that picture up for the
24 jury? Where is the rudder angle indicator on the wing?

25 A By my finger. It's a round gauge. It shows 5

1 degrees rudder at this time.

2 Q That's right over the doorway?

3 A Yes, it is.

4 Q Let me show you now Exhibit AV. Is that a
5 close-up picture of the rudder angle indicator over the
6 door?

7 A Yes.

8 Q Could you hold that up?

9 A This is a close up picture here. This is the
10 rudder angle indicator. The instrument currently shows a 5
11 degree left rudder. The center instrument is the
12 tachometer, showing the engineer RPM ahead in the stern,
13 and the third one is the engine order telegraph, showing
14 the orders from the wheelhouse to the engine room.

15 (Pause)

16 MR. CHALOS: Your Honor, at this time, I offer
17 Exhibits AY and AV into evidence.

18 MR. COLE: No objection.

19 THE COURT: They're in.

20 (Defendant's Exhibits AY
21 and AV were received in
22 evidence.)

23 BY MR. CHALOS: (Resuming)

24 Q Now, the other three pictures that I've shown
25 you, do they accurately -- do you know who took these

1 pictures?

2 A Yes, I believe -- I'm sure Ed Hoffman took those
3 pictures.

4 Q Taking a look at them, do they accurately
5 represent what you saw on that particular day, in the areas
6 depicted by the photos?

7 A Yes, they do.

8 Q What does Exhibit AW for identification depict?

9 A Exhibit AW depicts basically the instruments
10 shown directly above the wheelhouse windows looking
11 forward. Here, in the center, we have another rudder angle
12 indicator, which also shows the position of five degrees
13 left rudder. To the right of that, we have the maneuvering
14 RPM sign, showing the RPM for each ahead and astern order,
15 and above that, we have the rate of turn indicator in
16 degrees per minute, showing the change of heading of the
17 ship while changing course.

18 Q These are all on the bulkhead, in front of the
19 helmsman?

20 A Yes, they are.

21 Q Okay. What does Exhibit AX depict?

22 A Sorry. I misidentified this instrument above the
23 maneuvering RPM. That instrument is the actual engine RPM
24 indicator showing the ahead and astern RPM.

25 The second photograph shows the wind indicators

1 on the right hand side of the photograph. The first is the
2 wind direction and the one to the left of that is the wind
3 speed.

4 The instrument in the center is the one I
5 referred to before. That's the rate of turn indicator,
6 showing how fast the vessel is changing heading in -- and
7 it's calibrated in degrees per minute.

8 Q If someone wanted to see how quickly, or how
9 slowly, the vessel's rate of turn was, what would they do?

10 A They'd look at the rate of turn indicator.

11 Q And that would indicate -- if, for instance, you
12 knew that the vessel should turn 20 degrees per minute if
13 you use a certain rudder, could you look up and see if, in
14 fact, it was turning at that rate?

15 A Yes, you could.

16 Q Now, Exhibit BW, what does that represent?

17 A That represents the view, I believe, taken from
18 the wing of the bridge, looking down, showing some of the
19 mooring machinery, showing a protective shield, a water
20 barrier, and showing some of the main cargo piping leading
21 from -- from directly forward of the house to the forward
22 end of the ship.

23 Q What is this -- this right here, this opening
24 right here, in the upper left?

25 A The opening in the upper left is called an ullage

1 trunk or ullage opening. It's a large access going into
2 one of the cargo tanks.

3 Q Is that ullage trunk on all the tanks in this
4 vessel?

5 A It's on all of the cargo tanks.

6 (Pause)

7 MR. CHALOS: Your Honor, at this time, I'd offer
8 Exhibit AW, AX and BW as evidence.

9 MR. COLE: No objection.

10 THE COURT: They're admitted.

11 (Defendant's Exhibits AW,
12 AX and BW were received in
13 evidence.)

14 BY MR. CHALOS: (Resuming)

15 Q I'm sorry, Mr. Winer. I interrupted you. You
16 were telling us about the inspection at San Diego?

17 A And then after we left the wheelhouse, again,
18 after taking numerous photographs, we made a complete tour
19 of the machinery spaces, the engine room, the pumping
20 arrangement, pumping machinery. The -- those portions
21 located in the engine room. The auxiliaries, the lower
22 engine room. After which we went to the steering engine
23 room in the very after end of the ship, and carefully
24 looked at the steering machinery, the controls, the after
25 steering station located on the after bulkhead, the

1 communications equipment, as well as the hydraulic
2 machinery there.

3 Q What did you do after that?

4 A After that, I believe I went back down below and
5 took some additional photographs, and that was the end of
6 the survey.

7 Q Did you go into the dry dock to look at the
8 damage?

9 A Yes. Yes.

10 Q What did you do in that respect?

11 A In the dry dock to look at the damage, I first
12 made an overall walk around under the ship on dock. It was
13 fairly well -- it was an easy walk around, because they had
14 four foot blocks, which are pretty high. I made a complete
15 walk around, and then I started to make photographs, take
16 photographs on a station by station basis to try and
17 portray by photography the important aspects of the damage,
18 including the unique starboard side supports, which were
19 made necessary by the severe bottom damage and where the
20 starboard side.

21 I took about a hundred photographs of the bottom.

22 Q Now, you -- could you describe the damage that
23 you saw?

24 A Yes. The damage was generally fore and aft.

25 Q What do you mean by "fore and aft"?

1 A From the forward end of the ship from the bow to
2 the stern, including gouges, severe physical distortion of
3 the shell plating as well as the internals, some scraping,
4 both heavy and light, generally confined to the forward end
5 of the ship, the starboard portion and the center line
6 tanks. The port wing tanks were generally unaffected.

7 The damage started about 50 feet after the actual
8 bow, due to the shape of the ship and the forebody, and ran
9 straight aft, with a slight curvature to starboard, and the
10 damage seemed to leave the vessel, or the vessel went over
11 the damaging rocks, off the starboard number five tank and
12 the starboard slot tank.

13 Q Do you have an opinion as to the cause of the
14 damage you viewed?

15 A Yes, I do.

16 Q What is your opinion?

17 A My opinion is that the damage was caused by two
18 contacts with a hard ground material. The first contact
19 occurred under a situation where the vessel contacted and
20 kept moving until it passed completely over that
21 obstruction, leaving a trail of indents, distortions and
22 wrinkles at the location I mentioned before, and where the
23 five starboard cargo tank and the starboard slop tank.

24 It appeared to me, in my opinion, the ship then
25 proceeded for a short distance and struck a shallower hard

1 protrusion, which arrested the ship's motion, and that's
2 where the ship ended up, impaled on the rock. That's where
3 she finally stopped.

4 Q Do you have an opinion as to the length of time
5 between the first hit and the second hit, as you've
6 described?

7 A Yes.

8 Q What is your opinion?

9 A My opinion is that the entire procedure of the
10 first and second hit took less than one minute.

11 Q Why do you say that?

12 A I say that based on the distance between the two
13 underwater rocks, which are defined on the detailed depth
14 chart, the velocity of the ship, and the statements by
15 various crew members, all put together.

16 Q And do you have an opinion as to what time this
17 vessel struck the first rock?

18 A Yes, I do.

19 Q What is your opinion?

20 A In my opinion, the vessel first made contact on
21 the seven fathom mark, shown on the chart, at about
22 eight-and-a-half minutes after midnight on the 24th of
23 March.

24 Q And what do you base that conclusion on?

25 A I base that conclusion on the state of the tide

1 as displayed to me by the tide table, and the tide
2 fluctuation chart; the soundings shown in the various
3 harbor charts; and the draft of the vessel, which was
4 slightly over 56 feet.

5 Number one, based on the tide charts it appears
6 quite certain that the tide was coming up -- it was about
7 ten feet above mean low, low water level. On that basis,
8 you would take the depths shown on the various charts,
9 which are in fathoms, and add ten feet onto that. That
10 would give you the depth of the water over the eight fathom
11 mark, over the seven fathom mark, and over the six fathom
12 mark.

13 Q Have you reviewed the detail sounding on that
14 chart for this area?

15 A Yes, I have.

16 Q And did you take that chart into consideration in
17 reaching your conclusions?

18 A Yes, I did.

19 Q Let me show you what we've marked for
20 identification as Defendant's Exhibit AN.

21 (Pause)

22 A Yes. Defendant's Exhibit AN. Let me ask you, is
23 this -- is this the chart that you reviewed?

24 A Yes, it is.

25 Q All right. And who produces this chart?

1 THE COURT: Let's get the foundation and get it
2 in evidence before we do that.

3 BY MR. CHALOS: (Resuming)

4 Q Is this a chart that you prepared?

5 A Yes, it is.

6 Q Where do all these figures come from? What does
7 this represent?

8 A What I did to achieve that, is I took the
9 appropriate section of this chart --

10 Q Exhibit AN.

11 A Exhibit AN -- and I enlarged that to an
12 appropriate scale, which is shown in the green rectangle --

13 Q Did you prepare this scale?

14 A Yeah. I prepared that both in feet and miles.
15 Then I took the trajectory from Mr. Shizume's simulation
16 and scaled the actual vessel size and overlaid them to put
17 it on one piece of paper.

18 Q And what do these ship lengths represent?

19 A Those ship lengths represent the position and
20 heading of the vessel at one minute intervals.

21 Q Starting at --

22 A 001-and-a-half at the upper righthand corner.

23 Q A minute-and-a-half after midnight?

24 A Yes, sir.

25 Q And what does the length of the vessel that you

1 have depicted here represent?

2 A That represents the ship length of 987 feet.

3 Q Is that the scale?

4 A Yes, it is.

5 Q And you've marked the minutes on here in green?

6 A Yes, I did.

7 MR. CHALOS: Your Honor, at this time, the
8 defense offers Exhibit BU into evidence.

9 MR. COLE: No objection.

10 THE COURT: It's admitted.

11 (Defendant's Exhibit BU
12 was received in evidence.)

13 MR. CHALOS: May we get a little closer so -- why
14 don't you bring the pointer with you, Mr. Winer.

15 THE COURT: Mr. Winer, take that amplifier with
16 you. It's on the top of that little black box, and it will
17 fit in your pocket.

18 (Pause)

19 BY MR. CHALOS: (Resuming)

20 Q All right. Now. You listened to the testimony
21 of Mr. Greiner, did you not?

22 A Yes, I did.

23 Q And do you recall Mr. Greiner saying that he
24 believe that the vessel struck the first reef somewhere
25 around five-and-a-half minutes after midnight?

1 Q Do you agree, or disagree, with that opinion?

2 A I disagree with that opinion.

3 Q Why do you disagree?

4 A I disagree with that opinion, simply because the
5 simulation following from the four checkpoints on the way
6 down from Valdez project onward to 0001-and-a-half at a
7 given location, and the subsequent locations on an XY axis
8 shown on the simulation brings the ship at a position here
9 at the time 0005-and-a-half.

10 Q How much water is indicated, according to the
11 sounding chart at that time?

12 A Over 40 fathoms.

13 Q Which is how many feet?

14 A Over 420 feet.

15 Q Do you believe that the vessel struck a reef in
16 240 feet of water?

17 A No, I don't.

18 Q Where was the vessel at six-and-a-half minutes
19 after midnight?

20 A At six-and-a-half minutes after midnight, the
21 vessel was in this position here, and the water depth
22 ranges from approximately 18 fathoms to 33 fathoms.

23 Q And how much is that in feet?

24 A That would be 108 feet to 300 -- 180 feet to --
25 over a hundred feet to 180 feet.

1 Q Do you believe that the vessel struck a reef at
2 six-and-a-half minutes after?

3 A No, I don't.

4 Q Now, you say you believe that the vessel struck
5 the reef for the first time at about eight-and-a-half
6 minutes after?

7 A Yes, I do.

8 Q What is the basis for that?

9 A The basis for that opinion is the fact that,
10 following the track, the vessel was always in deep enough
11 water. The vessel passed over this range of eight-plus
12 fathom protrusion shown here --

13 Q What depth would it have been at that point, the
14 eight-plus fathoms?

15 A The eight-plus fathoms would be 48 feet plus ten
16 feet of tide. Well, it's 48 plus, I think that's 8.2
17 fathoms, so it's about 49 feet, plus ten feet of tide,
18 which would be 59 feet. The vessel was only drawing 56
19 feet, so in my opinion, the vessel cleared that particular
20 hazard.

21 Q All right.

22 A I didn't --

23 Q You have the ship at eight-and-a-half minutes
24 down here. What kind of -- what kind of shoals do you have
25 there?

1 A The water depth here shows as low as 7.1 fathoms,
2 which would be about 42-plus feet, and allowing for the ten
3 feet above mean low, low water, the depth there would be a
4 slightly over 52 feet, which would have provided about a
5 four-foot interference, that is, four foot to shallow
6 water, compared to the draft of the shift. At that point,
7 0008-and-a-half.

8 Q There's been some testimony about a tunnel that
9 was noticed down in San Diego?

10 A Yes.

11 Q What was the depth?

12 A The depth of the tunnel shows on the sketch to be
13 four feet.

14 Q Which is what you're talking about here?

15 A Yes, it is.

16 Q Does that support the conclusion that you just
17 stated?

18 A Yes.

19 Q The fact that you saw that tunnel?

20 A It certainly does.

21 Q Okay. At what time do you believe that the
22 vessel struck the reef that caused it to stop completely?

23 A I believe that the vessel struck the
24 approximately six fathom reef within one minute after
25 contacting the seven fathom reef.

1 Q So by nine-and-a-half, she was hard aground?

2 A Yes, sir.

3 Q In your opinion.

4 A Yes, it was -- in my opinion.

5 Q You prepared another chart in this regard, and
6 we've marked it as Defendant's Exhibit BV for
7 identification. Can you tell me what this chart
8 represents?

9 A Certainly. That chart represents a magnified
10 portion of the prior chart. The first chart was prepared
11 with the idea in mind of showing the entire vessel's track
12 from the time the turn commenced at 0001-and-a-half. This
13 portion shows a close-up, if you may, of the vessel as it
14 proceeded over the eight fathom reef and -- another scale
15 model here -- down to the eight fathom here, to the seven
16 fathom reef where it made contact, and then onward at a
17 slight attitude difference from its course to the final six
18 fathom reef.

19 Q When the vessel hit the six fathom reef, do you
20 have an opinion as to whether she changed heading at all?

21 A Yes. Some of the transcript by the third mate,
22 and the helmsman, indicated that counter rudder was given
23 at that time, and --

24 Q What do you mean, "counter rudder"?

25 A Well, there was right, or starboard rudder given

1 in the effort to make this turn, and then the testimony is
2 that when the vessel fetched upon the six fathom rock, they
3 gave counter rudder, or left rudder --

4 Q Are you talking about Mr. Cousins' testimony
5 about a hard left rudder at that point?

6 A Yes. And that also shows up on one of the
7 Exhibits I studied, and that is the exhibit of the course
8 recorder.

9 Q Now, was this diagram done to scale?

10 A Yes, it was. And the scale is shown in the upper
11 left. This model I'm using here is also scale.

12 Q All right. Does the course of the ship
13 accurately reflect Mr. Shizume's simulation?

14 A Yes, it does.

15 MR. CHALOS: Your Honor, at this time, we offer
16 Exhibit BV into evidence.

17 MR. COLE: No objection.

18 THE COURT: It is admitted.

19 (Defendant's Exhibit A was
20 received in evidence.)

21 BY MR. CHALOS: (Resuming)

22 Q (Inaudible).

23 A Thank you.

24 (Pause)

25 Q Sir, you spoke about the eight fathom mark, and

1 you said you thought there was 8.2 fathoms?

2 A Yes.

3 Q Let me show you what we've marked as Exhibit BF.
4 Can you tell us what the eight fathom marks indicate here
5 on this --

6 A Yes. It shows eight-and-a-half fathoms, or 8.5
7 fathoms.

8 Q That would be 52 feet, would it not?

9 A Yes, it would.

10 Q Sorry. Fifty-one feet.

11 A Fifty-one feet. Forty-eight plus three, correct.

12 Q All right. So if you had ten feet of tide at
13 that point, then this area would be 61 feet?

14 A Yes, it would.

15 Q So when we talk about the eight fathom area,
16 we're talking -- as shown on the chart, we're talking about
17 an area that had, at that point in time, 61 feet?

18 A That's correct.

19 Q Above water.

20 A Yes.

21 Q Now, you spoke about the course recorder. Did
22 you make a chart of the course recorder?

23 A Yes.

24 Q Is this the chart that you made?

25 A Yes, it is.

1 Q Now, what was the purpose of making this chart?

2 A The purpose of making this chart was to place the
3 entire pattern of the course during the interval involved
4 in one scale, without changing quadrants. The original
5 course recorder is --

6 Q Let me get that.

7 (Pause)

8 Let me show you what's been marked as Plaintiff's
9 Exhibit 16 and ask you is that the original that you're
10 referring to?

11 A Yes, it is.

12 Q Okay. What's the difference between Exhibit 16
13 and what we've marked as Exhibit BT, BT for identification?

14 A The difference is the quadrants for the 90-degree
15 segments of the total compass are shown in four different
16 scales here. First is 0 to 90; second is 90 back to 180;
17 then 180 to 270; and 270 to 360. And which quadrant you're
18 in is defined by where this quadrant identifier stripe is,
19 whether it's in the 0 to 90 range; the 90 to 180 range; the
20 180 to 270; or the 270, 360.

21 Technically, this is a fine way to record them,
22 but for rapid evaluation and inspection, what I did is I
23 actually unfolded, to keep the whole thing on one range,
24 which I renumbered on the lefthand corner to show from 180
25 down to 310 in one expanse.

1 (TAPE CHANGED TO C-3665)

2 So, in fact, what I did is, I took the portion as
3 shown in the title from the hour 12:09-and-a-half here, and
4 I merely folded it over, and that shows up here. I didn't
5 redraw this. What I did is, I reproduced the original
6 chart on acetate sheet and then simply inverted it and
7 rexeroxed it. So I have an actual original, just turned
8 over.

9 Q So does this chart more accurately reflect what
10 was happening with the vessel's rudder?

11 A Well --

12 Q When I say more accurately, more pictorially?

13 A Yes.

14 Q In other words, starting at 12:01-and-a-half, the
15 vessel carried right rudder right on through to about
16 12:10-and-a-half or so?

17 A Yes.

18 Q And it got all the way back to about course 305?

19 A Yes, it did.

20 Q And then there was this hard left that you're
21 talking about?

22 A Yes.

23 Q Okay.

24 So it's just an easier way to read the course
25 recorder?

1 Q What does that mean?

2 A That means, instead of holding a 10 degree or
3 whatever right rudder they were holding at that time, a
4 counter, or lefthand rudder, or reduced rudder helm was
5 imposed, which interfered with the change in course
6 depicted by the straight line shown here.

7 That slight hitch at 12:06-and-a-half occurred at
8 course approximately 246. At that time, the vessel was in
9 deep water.

10 Q Well, that was going to be my next question. Do
11 you have an opinion as to whether that hitch might have
12 been caused by the vessel interacting with the bottom?

13 A Yes, I do.

14 Q What's your opinion?

15 A My opinion is, it was not caused by interaction
16 with the vessel bottom, because at course 246 and time
17 0006-and-a-half, the vessel was in deep water.

18 Q I would like to give you a hypothetical. Assume
19 for the moment that the helmsman said that at some point in
20 time he applied counter rudder trying to steady up on
21 course 245. Would that kind of statement be consistent
22 with the hitch that you saw in this course recorder?

23 A It certainly would.

24 Q Now, sir, in that regard, I show you what we
25 marked as Exhibit BE. Have you had the opportunity to

1 review this -- this Exhibit?

2 A Yes.

3 Q Is your opinion about the counter rudder being
4 applied at about 12:06 or so depicted in this particular
5 Exhibit?

6 A Yes, it is.

7 Q Can you point out where that is?

8 A Certainly. That is shown with the code of the
9 triangles, which define what the course recorder indicates,
10 and these triangles come down at the various times --
11 12:02, 12:03 -- the hours and minutes are marked on the
12 bottom scale, and the course in degrees marked in the left
13 wing scale. It shows a steady movement on the course
14 recorder up to the time of 12:06-and-a-half.

15 At that time, it changes direction significantly
16 and abruptly, and makes almost no move whatsoever for a
17 full minute, after which time, it goes back onto the same
18 slope it had before.

19 Q What does that indicate to you?

20 A That indicates that there was, at the time
21 12:06-and-a-half, an abrupt interruption of the previously
22 steady change in heading.

23 Q Is that consistent with a counter rudder being
24 put on?

25 A Yes, it is.

1 Q Now, can you explain to us what the rudder angle
2 10 degrees indicates?

3 A Yes. That indicates what the course would have
4 been had a 10 degree rudder been applied at time zero, or
5 time 12:01-and-a-half. The course would have followed the
6 value depicted by this line. So for --

7 Q In a steady manner.

8 A In a steady manner. So, for example, say at
9 12:05, the course would have been, as shown here, about
10 260, instead of being 260 where it shows where the actual
11 rudder _____ applied.

12 Q Well, let me ask you this. Take 12:07, for
13 instance. What would the course heading have been at that
14 point, had 10 degrees right rudder been used?

15 A The course at 12:07 would have been 290 degrees.

16 Q Meaning that it would have -- the vessel would
17 have swing past the 270 by that point?

18 A At 20 degrees --

19 Q -- northwest?

20 A Yes, it would.

21 Q Okay. What course is indicated that the vessel
22 was actually on at the same time, at that time?

23 A About 250, about 245, 246, 250, in this range
24 here.

25 Q And that's because less than 10 degrees of right

1 rudder was being used then?

2 A Yes.

3 MR. CHALOS: Your Honor, this probably is a good
4 place to stop.

5 THE COURT: All right. We'll recess until
6 tomorrow morning. I'll see you back then.

7 Remember my instructions not to discuss the
8 matter among yourselves, with any other person, or form or
9 express any opinions.

10 Anything we can do, counsel, before we recess?

11 MR. : No.

12 THE COURT: I'll recess, then.

13 THE CLERK: Please rise. This Court stands in
14 recess, subject to call.

15 (Whereupon, at 1:30 p.m., the hearing recessed.)

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SUPERIOR COURT)
STATE OF ALASKA) Case No. 3ANS89-7217
Case No. 3ANS89-7218

I do hereby certify that the foregoing transcript was typed by me and that said transcript is a true record of the recorded proceedings to the best of my ability.

Alexandra Tomalonis
ALEXANDRA TOMALONIS