

Transcript of the Testimony of **Stipe Mrgudic**

Date taken: July 19, 2021

**Crescent Towing & Salvage Co., Inc., et al v. M/V
Jalma Topic, et al**

All electronic deposition & exhibit files
are available at [<<<www.psrdocs.com>>>](http://www.psrdocs.com).
Please call or e-mail reporters@psrdocs.com if you need a
Username and **Password**.

Professional Shorthand Reporters, Inc.

Phone:504-529-5255

Fax:504-529-5257

Email:reporters@psrdocs.com

Internet: <http://www.psrdocs.com>

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF LOUISIANA

CRESCENT TOWING & SALVAGE
CO., INC. and COOPER/T.SMITH
MOORING CO., INC.

CIVIL ACTION
NO. 2:21-cv-01331

VERSUS

JUDGE: MORGAN

M/V JALMA TOPIC, her engines,
tackle, equipment, furniture
appurtenances, etc., in rem

MAGISTRATE JUDGE
PHILLIPS CURRAULT

Deposition of Stipe Mrgudic, [REDACTED]
[REDACTED], [REDACTED],
taken in the offices of Buck Kreihs Marine
Repair, Mississippi River facility, 3101
Patterson Drive, New Orleans, Louisiana 70114,
on Monday, the 19th day of July, 2021.

APPEARANCES:

SALLEY, HITE MERCER & RESOR, LLC
(By: David M. Flotte, Esq.)
(Kevin Frey, Esq.)
365 Canal Street, Suite 1710
New Orleans, Louisiana 70130

ATTORNEYS FOR PLAINTIFF,
CRESCENT TOWING and SALVAGE CO., INC.

1 APPEARANCES (Continued):

2

3 WILSON, ELSE, MOSKOWITZ,
4 EDELMAN & DICKER, LLP
(By: Michael Harowski, Esq.)
5 650 Poydras Street, #2200
New Orleans, Louisiana 70130

6

ATTORNEYS FOR DEFENDANT,
M/V JALMA TOPIC

7

8

9

REPORTED BY:

10

BARBARA A. BURGER
11 CERTIFIED COURT REPORTER

12

13

14

15

16

17

18

19

20

21

22

23

24

25

1	EXAMINATION INDEX	
2		
3		Page
4	Examination by Mr. Flotte	7
5	Examination by Mr. Harowski	87
6	Examination by Mr. Flotte	89
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		

1	EXHIBIT INDEX	
2		
3		Page
4	Exhibit No. 1	7
5	(Notice of Deposition of Stipe Mrgudic)	
6	Exhibit No. 2	7
7	(IMO Crew List - Bates JALMA TOPIC000002)	
8	Exhibit No. 3	9
9	(Principal Particulars - Bates JALMA	
10	TOPIC000001)	
11	Exhibit No. 4	23
12	(U.S. Coast Guard Witness Statement Form - Bates	
13	JALMA TOPIC000009)	
14	Exhibit No. 5	26
15	(Bates JALMA TOPIC000012-13)	
16	Exhibit No. 6	44
17	(Document entitled For Possible Presentation to	
18	the United States Coast Guard - Bates JALMA	
19	TOPIC000016-17)	
20	Exhibit No. 7	44
21	(Work Order - Bates JALMA TOPIC000014-15)	
22	Exhibit No. 8	50
23	(Marfin Management S.A.M. Fleet Standing	
24	Instructions - Chapter 15-Maintenance - Bates	
25	JALMA TOPIC000019-23)	

1	Exhibit No. 9	50
2	(Lotina Navigation Company Inspecting and	
3	Testing - Bates JALMA TOPIC000018)	
4	Exhibit No. 10.....	54
5	(Lloyd's Register of Shipping Part5 Chapter 19	
6	Calculation Sheet of Connection of Tiller to	
7	Rudder Stock - Bates JALMA TOPIC000038-39)	
8	Exhibit No. 11	55
9	(Rules and Regulations for the Classification of	
10	Ships, January 2016 Steering Arrangements)	
11	Exhibit No. 12	71
12	(Steering Method - various pages)	
13	Exhibit No. 13	71
14	(Photograph of solenoid valve)	
15	Exhibit No. 14	71
16	(Diagram of ship - Bates JALMA TOPIC000032)	
17	Exhibit No. 15	82
18	(U.S. Coast Guard Rules and Regulations dated	
19	12-May-2021, 06-June-2021, 22-June-2021,	
20	11-July-2021)	
21		
22		
23		
24		
25		

1 S T I P U L A T I O N

2

3 It is stipulated and agreed by and
4 between counsel for the parties hereto that the
5 deposition of the aforementioned witness is
6 hereby being taken for all purposes allowed
7 under the Federal Rules of Civil Procedure, in
8 accordance with law, pursuant to notice;

9 That the formalities of reading,
10 signing, sealing, certification and filing are
11 specifically waived;

12 That all objections, save those as to
13 the form of the question and the responsiveness
14 of the answer, are hereby reserved until such
15 time as this deposition, or any part thereof,
16 may be used or sought to be used in evidence.

17 * * * * * *

18 BARBARA A. BURGER, Certified Court
19 Reporter, in and for the State of Louisiana,
20 officiated in administering the oath to the
21 witness.

22

23

24

25

1 Stipe Mrgudic,
2 having been first duly sworn by the
3 above-mentioned court reporter, did testify as
4 follows:

5 - EXAMINATION -

6 BY MR. FLOTTE:

7 Q. For the record, I'll mark as Exhibit
8 1 a copy of the Notice. And let me mark as
9 Exhibit 2 the IMO crew list that's previously
10 been produced. Are you No. 11?

11 A. Yes, I am.

12 Q. Can you state your full name and
13 address for the record, please?

14 A. Stipe Mrgudic, [REDACTED]
15 [REDACTED].

16 Q. And you've written that down for the
17 court reporter in case --

18 A. Yes.

19 Q. Very good. Are you the chief
20 engineer aboard the JALMA TOPIC?

21 A. Yes, I am.

22 Q. How long have you been assigned to
23 the JALMA TOPIC?

24 A. Four months and ten days.

25 Q. Where was the ship when you came

1 aboard, if you remember?

2 A. Turkey dry dock. Tuzla, town of
3 Tuzla.

4 Q. Turkey dry dock in --

5 A. Tuzla.

6 Q. Tuzla?

7 A. Yes.

8 Q. Can you spell that?

9 A. T-U-Z-A (sic).

10 Q. Tuza. Got it. Was that dry dock due
11 to an annual inspection or was there some issue?

12 A. Regular.

13 Q. Regular?

14 A. Yeah, regular dry dock.

15 Q. And "annual" is probably a bad word.
16 Do you know how frequently the ship plans on
17 going to dry dock?

18 A. It's usually three to five years.

19 Q. Three to five years. And so about
20 four months ago the ship was in dry dock?

21 A. Yes.

22 Q. Very good. Were you present in the
23 position as chief engineer when you came aboard?

24 A. Yes.

25 Q. And were you present when the work

1 that was done in the dry dock was undertaken?

2 A. I came on the half of dry dock.

3 Q. Half?

4 A. In the middle of it, yes.

5 Q. Before you joined the ship in dry
6 dock about four months ago, had you ever worked
7 aboard the ship before?

8 A. On JALMA TOPIC?

9 Q. The JALMA TOPIC.

10 A. No, I did not.

11 Q. Who -- did you sign on articles? How
12 does it work? Do you have an employer?

13 A. Yes, I do.

14 Q. Who is your employer?

15 A. Marfin Management.

16 Q. Can you spell -- let me see, it's on
17 the particulars?

18 A. It should be. I think it is.

19 Q. I'll show you a document I'll mark as
20 Exhibit 3. And Marfin Management is listed as
21 the operator near the bottom?

22 A. Yes, you can see "operators."

23 Q. Very good. And this ship sails under
24 Lloyd's Classification Society?

25 A. Yes, it does.

1 Q. Have you worked for other ships while
2 working for Marfin Management?

3 A. Yes, I do.

4 Q. How long have you worked for ships
5 under Marfin Management?

6 A. Two times actually I've been here.
7 So first from, I believe, 2006 to 2011. Then I
8 went to offshore and then I came back on Marfin,
9 that's 2016, until now.

10 Q. 2016 until now. Okay. When you said
11 you were here, where did you mean? You were
12 here --

13 A. With the company.

14 Q. With the company, okay.

15 A. The first time. Then I went to
16 offshore to another company, then I come back
17 again.

18 Q. Okay. Where is Marfin Management
19 based?

20 A. In Monaco, Monte Carlo.

21 Q. Monaco?

22 A. Yes.

23 Q. Monte Carlo?

24 A. Yes.

25 Q. What certificates do you hold?

1 A. I'm holding chief engineer
2 certificate for the propulsion of three thousand
3 kilowatts and more.

4 Q. How long have you held that
5 certificate? Or what year did you get that
6 certificate?

7 A. Maybe four years ago.

8 Q. About four years ago?

9 A. About.

10 Q. So insofar as when the JALMA TOPIC
11 was in dry dock four months ago, can you recall
12 what was done relative to the steering systems
13 and its component parts?

14 A. I cannot. I'm sorry.

15 Q. And that's fine. You shouldn't
16 guess, and we didn't go over this completely --

17 A. No, it's okay.

18 Q. Yeah, and it's okay. There's other
19 ways for us to find out things and it's
20 important that you tell us any time you don't
21 know the answer to the question. Okay?

22 A. Okay.

23 Q. Yes. Very good. So has the steering
24 system arrangement been the same aboard the
25 JALMA TOPIC from the time you joined the ship

1 about four months ago until the present?

2 A. Yes.

3 Q. What are the component parts of the
4 steering system?

5 A. Component parts?

6 Q. Yeah. In other words, I understand
7 that there are -- there's a single rudder,
8 correct?

9 A. Yes. Single rudder.

10 Q. There's two steering pumps?

11 A. Two steering pumps with associated
12 hydraulic equipment --

13 Q. There's hydraulic --

14 A. -- solenoid valves, tank, cylinders.

15 Q. Okay.

16 A. There is a tiller, rudder shaft,
17 linkages and that is this heavy parts. And then
18 there is electrical parts.

19 Q. Okay.

20 A. Electrical parts which consist of the
21 parts for control stand of the bridge.

22 (Whereupon, the court reporter asks
23 the witness to clarify).

24 BY MR. FLOTTE:

25 Q. Go real slowly. There are electrical

1 parts?

2 A. Yes.

3 Q. And can you clarify?

4 A. Yes, I can. So two electrical motors
5 of the pumps.

6 Q. Two electrical motors of the pumps.

7 A. Of course, coils on solenoid valves.

8 Q. There's coils on solenoid valves.

9 A. Yes. There is Servo print board.

10 Q. The Servo --

11 A. It's part of the autopilot. It's
12 part of the autopilot.

13 Q. Servo is part of the autopilot?

14 A. Yes. Autopilot board, electrical
15 board.

16 MR. HAROWSKI:

17 Chief, we're repeating back some
18 of the things you said just to make
19 sure she understands it correctly.

20 THE WITNESS:

21 Okay. That is no problem.

22 BY MR. FLOTTE:

23 Q. And you're doing fine. Just go a
24 little slower so we can repeat it.

25 A. On the bridge it's called control

1 stand where the helm is.

2 Q. There's a control stand on the bridge
3 at the helm.

4 A. And that is most of it. And
5 transmitter on the steering gear. Transmitter.

6 Q. Transmitter on the steering gear?

7 A. Yes.

8 Q. Okay. Let's talk about the
9 transmitter on the steering gear first and we're
10 going to cover a few things. When you say
11 there's a transmitter on the steering gear, does
12 that allow someone to steer without touching the
13 wheel?

14 A. No.

15 Q. There's a transmitter from the helm
16 from the wheel to --

17 A. Transmitter is used for like a
18 feedback.

19 Q. Feedback.

20 A. It's a feedback.

21 Q. And what does it transmit? What type
22 of signal?

23 A. It's electrical signal.

24 Q. So in other words, if you are going
25 to go from amidships to starboard 10, it would

1 send that signal when the wheels moved?

2 A. Yes.

3 Q. And that is what it transmits?

4 A. Yes.

5 Q. Does it transmit --

6 A. It feeds back originally when you

7 put -- when you put the wheel, I don't know.

8 For example, 10 starboard, when it comes to 10

9 starboard, it will transmit and send back to the

10 control stand that the wheel is on 10 starboard.

11 Q. So it gives feedback as to when --

12 A. Yes, rudder deflection feedback,

13 let's say.

14 Q. Rudder deflection feedback.

15 A. Yes.

16 Q. So we're going to take a few baby

17 steps to go through this to make sure it's all

18 clear.

19 A. Okay.

20 Q. So is the feedback function that you

21 used when -- let me back up. What is follow-up

22 steering?

23 A. What is follow-up steering?

24 Q. Uh-huh.

25 A. It's remote steering from the bridge.

1 Q. Okay. And so if you put -- if the
2 helmsman goes from rudder amidships to starboard
3 10, on follow-up steering does the transmitter
4 provide a signal to tell the rudder to stop
5 moving once it achieves the starboard 10?

6 A. Yes, it is.

7 Q. And that's the type of follow-up that
8 you're talking about?

9 A. Yes.

10 Q. And is the steering system equipped
11 also with non-follow-up steering?

12 A. Yes, it is.

13 Q. And in non-follow-up steering, is
14 there a joy stick or a toggle on the control?

15 A. It's a toggle.

16 Q. Toggle, okay. So when the toggle
17 goes to the right, is it true that the rudder
18 will start turning to starboard and it will keep
19 turning to starboard until --

20 A. Until you put it in "off" position,
21 that toggle.

22 Q. Until it goes back to the middle
23 position and turns off, right?

24 A. Actually you are controlling the
25 non-follow-up. You are controlling -- you just

1 turn it on non-follow-up mode and you've got
2 this toggle. When you put it on, let's say,
3 starboard side, it will go to the starboard
4 until you put that toggle back on zero.

5 Q. Okay. Or until it hits whatever the
6 stopping --

7 A. Hard over.

8 Q. Stopping point --

9 A. Do hard over, yes.

10 Q. Hard over. So am I correct in
11 understanding that you have something on the
12 console that allows those on the bridge to
13 select whether you want to operate under
14 follow-up or non-follow-up, correct?

15 A. Yes. Exactly. It's on the bridge.

16 Q. Is there a similar arrangement in the
17 engine room?

18 A. No. We cannot choose that from
19 engine room.

20 Q. It wouldn't be very -- a good idea to
21 use non-follow-up --

22 A. You cannot see where --

23 Q. Okay. So there are two steering
24 pumps, correct?

25 A. Yes. Two.

1 Q. And does each -- during the time
2 that -- let me back up a little bit. Does each
3 steering pump circulate hydraulic fluid through
4 the system so that when valves are open, the
5 rams can control the rudder?

6 A. No. This is independent system. One
7 pump by the time. Only one pump can running.

8 Q. You only use one pump at a time?

9 A. Yes. It's design of the system.

10 Q. The design of the system is to use
11 one pump at a time?

12 A. Yes. Exactly.

13 Q. And during the four months that
14 you've been aboard the ship, has the practice
15 been to use one of the two pumps primarily or do
16 you alternate? How does it work?

17 A. During navigation, during navigation
18 we are changing pumps on weekly level. Let's
19 say Sunday in the morning most of the cases.
20 And during maneuvering times we transferring
21 controls to pump No. 1 because pump No. 1 is
22 connected to emergency source of power.

23 Q. Connected to? Can you repeat that?

24 A. Emergency source of power on
25 emergency switchboard.

1 MR. HAROWSKI:

2 Emergency source of power.

3 BY MR. FLOTTE:

4 Q. Emergency, okay.

5 A. Because if you lose power, emergency
6 generator will supply the power for this, for
7 the pump No. 1.

8 Q. Okay. So correct me if I'm wrong,
9 but if you are running on pump No. 2, will there
10 be an emergency generator that automatically
11 switches to pump No. 1?

12 A. No.

13 Q. But if you're on pump No. 1 and you
14 lose power, there will be an emergency generator
15 that switches to pump No. 2?

16 A. No, no, no. It will supply power to
17 pump No. 1.

18 Q. Supply power to pump No. 1?

19 A. Yes.

20 Q. I see. So the emergency generator is
21 tied into pump No. 1 only?

22 A. Yes.

23 Q. So on those weeks in which you are
24 running on pump No. 2, the emergency generator
25 won't provide automatic power in the event of a

1 failure?

2 A. No, it won't. Only No. 1.

3 Q. Understood. So what is the voltage
4 that goes to the pumps?

5 A. To the electric motors.

6 Q. To the electric motors --

7 A. 440 volts A.C.

8 Q. 40 volts A.C.

9 A. 440.

10 Q. 400 volts A.C.

11 A. 440.

12 Q. Sorry.

13 A. 4-4-0.

14 Q. 4-4-0?

15 A. Yes. Volts A.C.

16 Q. Volts A.C. to the pumps. All right.

17 And when the ship is in normal
18 operation in navigation, is there anything that
19 records any of the data associated with the
20 steering system?

21 A. No. Only if no power fail alarm
22 appears --

23 Q. Okay.

24 A. -- it will be in alarm log.

25 Q. Alarm lock?

1 A. Yes.

2 MR. HAROWSKI:

3 Log.

4 BY MR. FLOTTE:

5 Q. Log lock. Is that preserved on -- is
6 that part of the vessel data recorder or is it
7 an engine --

8 A. It is in engine room on monitoring
9 system.

10 Q. Engine room monitoring system. And
11 is there electronic download where if you go
12 back and look and see what happened?

13 A. It's printed. It is also printing.

14 Q. It's printing?

15 A. It's printing on a paper and it's on
16 computer.

17 Q. On computer. Okay. Do you know
18 whether or not that -- whatever from the
19 accident that happened a week ago to today, do
20 you know whether or not that either paper or
21 electronic computer information has been
22 preserved?

23 A. Yes, they are.

24 Q. Okay.

25 A. Yeah, they are.

1 Q. It's okay. I'm just trying to find
2 out. I'm just trying to catch up. Okay. No
3 worries.

4 So that record, whether it's
5 electronic or paper, is separate from the vessel
6 data recorder?

7 A. Yes, it is.

8 Q. Do you know what information is
9 preserved on the vessel data recorder that
10 pertains to steering?

11 A. I don't know up on the bridge what
12 they record.

13 Q. Do you know whether or not there is a
14 rudder indicator log on the vessel data recorder
15 or on the engine?

16 A. No. I don't believe. I don't know.
17 I don't know if there's any --

18 Q. Fair enough. No problem.

19 A. -- rudder indicator log.

20 Q. Okay. No worries.

21 So the engine -- the main engines
22 were -- I'm sorry, the main engine is a
23 M.A.N. -- Mitsui M.A.N. - B&W? That's what it
24 says on the particulars; is that correct?

25 A. Yes. Yes, it is. Main engine Mitsui

1 M.A.N.-B&W 6S50MC.

2 Q. All right. In the events, just to
3 kind of knock this out of the way, in the events
4 of last week when there was an accident, was
5 there any main engine power failure?

6 A. No.

7 Q. The main engine responded
8 continuously, correct?

9 A. Main engine responded as we ordered
10 to. No disturbances at all.

11 Q. I understand there was an issue with
12 the steering and I'm going to -- I'd first like
13 to go through a little bit of what you know
14 personally from your own observations. So the
15 accident happened in the early morning hours of
16 a Monday, correct?

17 A. 12.

18 Q. The 12th?

19 A. Yes. I don't know.

20 Q. You prepared a statement, I believe.
21 I'm going to show you it will give us a game
22 plan. I'll jump into it to see where we can go.
23 I've marked as Exhibit 4, is that a statement
24 that you prepared following the incident?

25 A. Yes.

1 Q. So we're going to go through a little
2 bit before we even get to it, but is the
3 handwriting on Exhibit 4 all your handwriting?

4 A. Yes, it is.

5 Q. So let's just go through it. It
6 says: "I started my watch at 00-00?"

7 A. Midnight, yeah.

8 Q. Midnight, okay. And: "Well rested.
9 Since beginning of my watch engine room check up
10 round were performed by me and two others."

11 A. Engine room staff.

12 Q. "Engine room staff. Oiler and third
13 engineer?"

14 A. Yes.

15 Q. Can you identify on Exhibit 2 the
16 numbers of the oiler and engineer that did the
17 watch at that time just by their number?

18 A. 13, #13 is third engineer, Mr.
19 Lipanovic, and the oiler is #15.

20 Q. All right. Thank you. It says:
21 "Always one person was in ECR." That's the
22 engine room, correct?

23 A. Yes.

24 Q. "There were no" -- "there was no
25 any" -- I guess "not any disturbances with" --

1 A. Equipment.

2 Q. "Equipment until time of accident.
3 More specifically," and can you read the next
4 part?

5 A. "More specifically until I haven't
6 received call by captain who ordered manual stop
7 of main engine."

8 Q. So am I correct in understanding that
9 the first notification that you had that there
10 was some issue was when the captain ordered
11 manual stop of the main engine?

12 A. Correct.

13 Q. Did he do that by intercom?

14 A. Yes. By a phone which directly
15 connected bridge and engine control room.

16 Q. Okay. During the period of time from
17 midnight until the time when you received that
18 order from the captain, which pump were you --
19 was the ship running on?

20 A. Steering --

21 Q. Steering --

22 A. Steering pump No. 1.

23 Q. All right. And so I think I
24 understood this before, but if steering pump No.
25 1 is running, it should -- if there was a loss

1 of power, the generators would -- emergency
2 generators would come on to give you power but
3 there was no loss of power?

4 A. There was no loss of power. We
5 proceed normal way.

6 Q. Okay. So when you received the order
7 for emergency stop of the main engine, what did
8 you do?

9 A. I stopped it.

10 Q. Is it a single button on the engine
11 room console?

12 A. It's a single button, yes.

13 Q. Did you notice what the rudder
14 position was at that time?

15 A. No, I didn't.

16 Q. Fair enough. I'll show you a
17 document I've marked as Exhibit 5 which is JALMA
18 TOPIC 12 and 13. These are some -- why don't
19 you tell me what those are. Is that a Bell
20 logger?

21 A. This is Bell logger and it's saying
22 on which mode of speed was main engine during
23 each time.

24 Q. Can you identify what the time was
25 from these -- first of all, is the Bell logger

1 kept in Greenwich Mean Time or local time or
2 what time, or do you know?

3 A. This is local time.

4 Q. Local time?

5 A. Yes.

6 Q. So can you identify the stop that --
7 when you were called to stop and administer the
8 stop, that's something that should be on here,
9 correct?

10 A. Yes. It should be.

11 Q. Take your time. We can go off the
12 record if you need to and look at it. I just
13 want you to mark with a pen where the stop --
14 which stop -- circle the stop order that was
15 when you stopped the ship at whatever time it is
16 you stopped.

17 A. I don't know what this means. I
18 don't know this short term.

19 Q. If you don't know it's okay. I
20 couldn't figure it out but it might be somebody
21 else can.

22 A. I'm thinking but I'm not sure what
23 this is.

24 Q. And so you made a mark but you --

25 A. Yes. STOP.

1 Q. Let me just take a peak. Okay. No
2 problem. And so the mark you made is around
3 3:22 local time?

4 A. I think, yeah.

5 Q. Yeah, which seems about right. Okay.
6 So let's go back to your statement. And it
7 says -- has some discussion of after the
8 accident?

9 A. Yes.

10 Q. Now, before we leave -- before we get
11 to that part, let me just ask you, was the ship
12 coming from an anchorage or was it coming
13 from -- where was the ship the day before this
14 accident?

15 A. Day before?

16 Q. Yeah.

17 A. We were on the sea.

18 Q. On the sea?

19 A. Sailing towards Southwest Pass.

20 Q. Did you drop anchors at all from the
21 time that you came into Southwest Pass until the
22 time of the accident?

23 A. No.

24 Q. You were able to come straight on in?

25 A. Yes.

1 Q. Okay. Sometimes ships are held up
2 and have to go to anchorage. That's all I'm
3 asking.

4 A. Yes, I know. This is our fourth
5 voyage here.

6 Q. Your fourth voyage here?

7 A. Yes.

8 Q. On some of the other voyages did you
9 have to drop anchor?

10 A. Yes. Of course. Several times.

11 Q. Several times, yeah, okay. So the
12 IMO crew list lists the last port of call as
13 Veracruz?

14 A. Yes.

15 Q. Did the ship JALMA TOPIC sail empty
16 without any cargo from Veracruz to the
17 Mississippi River?

18 A. Yes. Ballast only.

19 Q. Ballast?

20 A. Ballast voyage.

21 Q. You were in ballast; in other words,
22 you took on some water to adjust the wake but
23 there was no cargo?

24 A. No cargo on board.

25 Q. What was the last cargo that the ship

1 carried?

2 A. There was few kinds of cargo. Yellow
3 corn, soybean, and wheat, some kind of wheat.

4 Q. Did you -- and so at the time of the
5 accident, do you know where you were going?

6 A. Where are we going? Yes.

7 Q. Your destination. Were you going to
8 go to an anchorage to clean holds or were you
9 going to ADM Ama?

10 A. As I remember, we should go directly
11 on the loading position, on the berth.

12 Q. And I don't want you to guess at this
13 one, were you on charter or off charter or do
14 you know? It might be one for the captain.

15 A. I think it's better, but we were on,
16 but I think it's better --

17 Q. Yeah. No problem. And we don't want
18 you to guess. So were there any -- this is kind
19 of a broad question and you can tell me, let's
20 just talk about from Veracruz to the time you
21 received the stop engine order, were there any
22 mechanical problems with the ship?

23 A. No.

24 Q. Was there any steering problem with
25 the ship between Veracruz and the Mississippi

1 River?

2 A. No.

3 Q. Were there any hydraulic leaks from
4 any of the steering system components?

5 A. No.

6 Q. If there were hydraulic leaks, is
7 that something you as chief engineer would be
8 made aware of?

9 A. Of course.

10 Q. Were there any electrical problems
11 with the ship between Veracruz and the
12 Mississippi River?

13 A. No.

14 Q. How about coming up the river, no
15 electrical problems?

16 A. No.

17 Q. During the four months that you've
18 been -- four months and ten days that you've
19 been aboard, was any work done to your
20 recollection on any of the steering system
21 components, whether electrical or hydraulic or
22 mechanical?

23 A. There was no either electrical or
24 hydraulic. Only jobs like greasing, checking
25 the oil level, checking the linkage, that is

1 routine jobs.

2 Q. Correct. That's normal maintenance?

3 A. Yes.

4 Q. Normal operation?

5 A. Normal operation. Everyday check.

6 That's it.

7 Q. Okay. When let's just say do you
8 recall seeing any warnings from the steering
9 system between Veracruz and the time you
10 received the stop order?

11 A. No.

12 Q. If, for example, the hydraulic fluid
13 in one of the reservoirs is low, will a warning
14 flash in the engine room?

15 A. Yes, it will. Low oil level on the
16 designated tank that we are using.

17 Q. But during the period of time from
18 Veracruz to the time of the stop engine order on
19 July 12th I think it is --

20 A. Yes, it is.

21 Q. -- you received no such warnings,
22 correct?

23 A. No such warnings.

24 Q. If oil is added to any of the
25 reservoirs, is there any record typically made

1 of that if it's just a little bit? Or how does
2 that work?

3 A. No, we are not making any records if
4 we add because it's such small quantity. We are
5 not losing oil so we don't, you know.

6 Q. Okay. If you see oil on the deck,
7 it's an issue because you might have a seal or
8 you might have a cracked line or something, but
9 if you don't see any oil on the deck and you're
10 just adding a little bit to the reservoir, no
11 record would be made?

12 A. No. If we have a great amount of oil
13 to be added to the tanks, then we have also
14 major leakage.

15 Q. Right.

16 A. But we didn't have nothing of that.

17 Q. Okay. We'll go on to the part of the
18 statement about what you did to try to
19 investigate what happened.

20 A. Okay.

21 Q. Now, before we get to the
22 investigation, do you -- after you received the
23 stop engine order and you stopped the engine,
24 tell us what you felt, heard. What happened?

25 A. What I felt, okay, after the captain

1 hit -- after I hit on the captain's order manual
2 stop of main engine, I called the crew down
3 there to check the engine room like bilges and
4 everything else because I didn't know if we are
5 grounded or not, if we -- if there is a hole in
6 the hull or whatever and sounding of the fuel
7 was like most important.

8 Q. Okay.

9 A. When we check all of that, we know
10 that nothing is wrong with that part.

11 Q. All right.

12 A. With that part, and basically that
13 was it until guys like Coast Guard and other
14 people come onboard.

15 Q. Did you know there was a hole in the
16 bulbous bow from the accident?

17 A. Yes, I heard it but I didn't see it.

18 Q. It's kind of hard to see the bulbous
19 bow from the bridge at night, but you're in the
20 engine room, right?

21 A. Yes, I'm in engine room.

22 Q. So you're not going to have any
23 visibility as to what's happening outside?

24 A. I don't see nothing except engine
25 room.

1 Q. You work from below the waterline
2 usually, but you're in ballast so you still
3 would be pretty low in the hull of the ship?

4 A. Actually control room even in ballast
5 is above the waterline.

6 Q. Above the waterline?

7 A. Yes.

8 Q. So did you feel any collision?

9 A. Small bump. Small bump but nothing
10 hard.

11 Q. Okay. So let's go back to your
12 statement and talk about what you did after the
13 fact. It says: "My first suspicion was that the
14 solenoid valve coil was burnt. We tested both
15 pumps. Pump No. 1 was" -- and then can you read
16 that?

17 A. "When on remote."

18 Q. "When on remote?"

19 A. Yes.

20 Q. "Showing it can go only on port
21 side."

22 A. Yes.

23 Q. Can you explain what you did to test
24 pump No. 1?

25 A. Pump No. 1, yes, we just tested it

1 from the bridge by helm and it was stuck at I
2 believe 10 port. The rudder was stuck.

3 Q. So after you felt the bump and you
4 were testing pump No. 1 using the -- when you
5 say "when on remote," does that mean the engine
6 room -- I'm sorry, excuse me, that means that
7 the bridge is --

8 A. In control of that pump.

9 Q. In control of the pump.

10 A. Yes.

11 Q. But it would not respond to the
12 orders from the bridge for starboard rudder?

13 A. Yes. Exactly.

14 Q. Okay. Did you send anyone to the
15 area of the -- can you visualize the rudder
16 stock from any of the stern compartments?

17 A. I have to open manhole to the rudder
18 trunk. I cannot see it without opening this
19 manhole.

20 Q. Open the manhole to see the rudder
21 stock.

22 A. It's called the rudder trunk.

23 Q. Rudder trunk?

24 A. Yes. That is department where you
25 can see this cooling stuff of the rudder, the

1 rudder itself.

2 Q. But you confirm that it was not
3 responsive by looking at a rudder indicator in
4 the engine room?

5 A. Yes. In the steering gear room.

6 Q. In the steering gear room. The
7 steering gear room is a separate room from the
8 engine room?

9 A. It's based in the engine room but
10 it's separated by two fire doors, two sets of
11 fire doors.

12 Q. Understood. Your statement goes on
13 to say that it looks like the rudder can go only
14 to the port side. In other words, am I correct
15 in understanding that -- let's talk about the
16 mechanics of this. Is this a rotary vane
17 system?

18 A. I don't know.

19 Q. Are there hydraulic rams in the
20 system?

21 A. Yes.

22 Q. And so the hydraulic rams would
23 successfully allow the rudder to go to port but
24 would not work going to starboard when operated
25 remotely from the bridge, right?

1 A. That time we didn't divide system
2 hydraulically or electrical. We just know that
3 the rudder is going to the port side and it's
4 not going to the starboard side.

5 Q. Understood. And so because it's
6 electronic over hydraulic, it could be hydraulic
7 or it could be electric and you were still in
8 the investigation stage?

9 A. That time, yes.

10 Q. Got it. Understood. Thank you.

11 And it says: "Pump No. 2 was working
12 properly on remote as well as on emergency
13 steering." Can you tell us how you tested pump
14 No. 2?

15 A. Pump No. 1 was not working on remote.

16 Q. Right. Let's go to pump No. 2. It
17 says: "Pump No. 2 was working properly on remote
18 as well as on emergency steering."

19 A. Yes.

20 Q. Correct?

21 A. Yes, sir.

22 Q. So was that also tested remotely from
23 the bridge?

24 A. Yes. If I mentioned that -- yes, it
25 was remotely. Remotely as well on emergency

1 from the local side --

2 Q. Very good.

3 A. -- from the steering gear.

4 Q. Okay. So you suspect that -- let's
5 back up. Pump No. 1 was the pump that was in
6 use coming up the Mississippi River, correct?

7 A. Yes.

8 Q. And I think we covered this, but you
9 only use one pump at a time, correct?

10 A. Yes.

11 Q. And that is the way that the system
12 has been designed?

13 A. Yes, it is.

14 Q. And pump No. 2 was working properly
15 when tested after the accident, correct?

16 A. Correct.

17 Q. Was pump No. 2 -- and let's talk
18 about what it takes to run pump No. 2. When
19 you're going to steer using pump No. 2, do you
20 have to turn the pump on?

21 A. Yes. Of course.

22 Q. And the pump can be turned on from
23 the bridge or the engine room?

24 A. Both.

25 Q. And so was pump No. 2 on, even if not

1 in use, when you were coming up the river before
2 the bump?

3 A. No. It was shut.

4 Q. Shut.

5 A. Like you said, it's independent
6 system. Only one pump is working.

7 Q. And so it says: "After that we
8 replaced solenoid valve" --

9 A. Coil.

10 Q. "Coil. On" --

11 A. "On No. 1 but without result.
12 Problem persist."

13 Q. So the solenoid was not the problem,
14 correct?

15 A. Coil on solenoid --

16 Q. The coil on --

17 A. -- was not the problem.

18 Q. The coil on the solenoid was not the
19 problem. "My opinion is as far as the pump not
20 working good on" --

21 A. "My opinion is as far as pump working
22 good on emergency steering, that it is not
23 hydraulic related problem. It's electrical."

24 Q. Okay. And: "Electrical signals must
25 be checked?"

1 A. Yes.

2 Q. And is that -- I think we've gotten
3 to the bottom of your report. Was there --

4 MR. HAROWSKI:

5 Can we go off the record one
6 second?

7 MR. FLOTTE:

8 Yes.

9 (Off-the-record) .

10 BY MR. FLOTTE:

11 Q. Let's go back on the record. I
12 omitted -- I accidentally skipped and there's a
13 sentence here that says: "Pump No. 1 on
14 emergency steering was working properly." Can
15 you explain what that means?

16 A. Yes. First I have to explain what is
17 emergency steering.

18 Q. Yes.

19 A. It means that we manually activated
20 the hydraulic plungers inside through the hole
21 in the coil and it's only from local side. Only
22 from steering gear it can be managed.

23 Q. Only from the steering gear that's
24 down next to or part of the engine room?

25 A. Immediately under pump, on the

1 steering wheel pump.

2 Q. So how is it that the pump No. 1 on
3 emergency steering was working properly?

4 A. Yes.

5 Q. Explain --

6 A. Why.

7 Q. Does that -- you still have to have
8 electrical --

9 A. Yes. Electricity is on. Power is
10 on.

11 Q. But have you bypassed the remote?

12 A. It's just what I'm doing on
13 emergency. There is two coils. It went on
14 remote mode, on remote mode, on remote mode they
15 are receiving signals from the bridge and they
16 are automatically running. On emergency mode I
17 am pushing those coils with my hand. There is
18 a, I don't know, like (indicating) this of steel
19 around it, like bar, small bar and I am pushing
20 the coils inside and manually I am pushing also
21 the piston, hydraulic pistons and let the oil
22 through in the direction where I want, or I'm
23 receiving order from the bridge to the
24 starboard. I push the starboard side in, I
25 receive the oil to the hydraulic cylinder and

1 the starboard goes -- and the rudder goes
2 starboard.

3 Q. So when you've explained -- when
4 you're doing what you explained, pump No. 1 on
5 emergency steering was working properly, you
6 can't -- I mean, I understand you're able to
7 move the rudder to starboard by you manually
8 pushing on the rod?

9 A. Yes. Exactly.

10 Q. But that's not something you could
11 navigate with, is it?

12 A. Actually you can, I mean, but not in
13 narrow spaces like this. Not in narrow. It's
14 designed like emergency steering. If something
15 happened on the sea, we are in direct contact
16 with the bridge and they are giving you orders,
17 15 starboard amidship, five port, whatever they
18 need, and you are just pushing the rudder in
19 that position by emergency steering.

20 Q. And if you're pushing the rudder that
21 way by emergency steering, once you get it to a
22 position, let's just say amidships, will it stay
23 amidships?

24 A. Yes. Of course.

25 Q. We're going to come back to that.

1 I'll show you a document I've marked
2 as Exhibit 6 and this is -- let me just ask you,
3 it's two pages that's been produced and ask if
4 you can identify that. Is that something that
5 you've seen before today? My only question is
6 have you ever seen that?

7 A. Not before today.

8 Q. I'm going to show you a document
9 that's called a Work Order, Exhibit 7. Same
10 question, have you seen that before today?

11 A. Yes.

12 Q. Let's look at 7 since you've seen it
13 before. This is a work order, and I apologize
14 it for being small. Do you recall someone
15 from -- do you recall any outside contractors or
16 somebody else coming to assist and trying to
17 figure out what happened?

18 A. Yes, I do.

19 Q. I'm just going to go over this and I
20 want you to try to walk me through this so I can
21 understand.

22 A. Okay.

23 Q. It says: "Attendant note," and this
24 looks like it's -- it says authorized by Crystal
25 Pileggi, and this is an invoice for Radio

1 Holland out of Houston and there's also a
2 reference to Mackay in New Orleans and there's a
3 reference to a service engineer. Do you know
4 who came aboard? Is it this Darius --

5 A. Yes, Darius.

6 Q. -- Ascani? And this says: "Found
7 when pump No. 1 was in operation rudder drives
8 hard port with no wheel command." Is that how
9 it was behaving when you examined it?

10 A. For after the accident?

11 Q. Yeah, after the accident, correct.

12 A. No, it was not.

13 Q. It was not, okay. "Opened steering
14 amplifier 1 and tested feedback signal in NFU,"
15 which I think is non-follow-up, "mode?"

16 A. Yes.

17 Q. "Found feedback signal smooth from
18 port to starboard. Check" -- and that was not
19 the situation when you -- that was different
20 from what you found initially, right?

21 A. Well, I didn't test the NFU.

22 Q. You didn't test the what?

23 A. The NFU. I didn't test that signal
24 at all.

25 Q. The non-follow-up, you didn't test

1 the non-follow-up. In other words, that's the
2 toggle?

3 A. Yes. That's the toggle but he was
4 testing the signals. I did not test the signals
5 at all.

6 Q. Understood. "Check helm command in
7 follow -- in FU," or follow-up mode, "at manual
8 terminal board." Is the manual terminal board
9 on the bridge, correct?

10 A. I don't know what this mean about
11 manual terminal board.

12 Q. Okay. Is there any steering controls
13 in the engine room?

14 A. Yes, there are.

15 Q. What steering controls are in the
16 engine room?

17 A. For example, this amplifiers in a
18 test down there, amplifier 1.

19 Q. Amplifier 1?

20 A. Yes. He is in steering gear room.

21 Q. What does amplifier 1 do?

22 A. What is amplifier 1? It's a printed
23 board which receives and controls signals.

24 Q. All right. He says: "Found no
25 command given to rudder." Let me go back. I

1 think I've jumped too far ahead. Let me read
2 this. It says: "Found feedback signal smooth
3 from port to starboard. Check helm command in
4 follow-up mode at manual terminal board. Found
5 no command given to rudder. Remove relays from
6 amplifier 1 and checked with multimeter. Found
7 port relay contact always closed."

8 So from what you have explained that
9 you've done, he's looking at relays that you
10 didn't pull or check or test, correct?

11 A. No, I did not check them before.

12 Q. Fair enough. "Replace both relays
13 from vessel spares." You had spare relays?

14 A. Yes, we do.

15 Q. "Tested operation of system 1." Is
16 that the system that corresponds with the No. 1
17 pump?

18 A. Yes.

19 Q. "All functions of steering system 1
20 check normal at this time. Made complete
21 steering test in all modes and pumps. Found
22 steering operation now normal. All functions of
23 steering check good at this time. Had meeting
24 with U.S. Coast Guard and NTSB on details of
25 steering failure." And it looks like there's a

1 date on that, it says at the top "EDA July 15."
2 Let's see if there's another date. Down at the
3 bottom it says: "July 15 for his traveling
4 expenses."

5 So since July 15 has the steering
6 system aboard the ship worked fine?

7 A. Yes, it's working fine but we are
8 here on the berth so actually we don't need the
9 system.

10 Q. It looked like the rudder was -- had
11 a little bit of --

12 A. We tested with Mr. Darius and --

13 Q. Mr. who?

14 A. Darius, the service engineer.

15 Q. Darius Ascani?

16 A. Yes. Later on with Lloyd's the day
17 after --

18 MR. HAROWSKI:

19 He said later on with Lloyd's the
20 day after.

21 BY MR. FLOTTE:

22 Q. All right. Understood.

23 And when you say Lloyd's, it's
24 Lloyd's Class Surveyors?

25 A. Yes.

1 Q. Understood. How long does it take to
2 start the hydraulic pump for I'll just say pump
3 No. 2?

4 A. That depends where you are.

5 Q. Can you explain that.

6 A. Yes, I can explain. There is a start
7 button in engine control room and there is a
8 start button on the bridge. If you are over
9 there, it doesn't need so much time.

10 Q. When you hit the start button on the
11 engine room or the bridge, regardless, and the
12 pump starts, is it necessary to circulate the
13 hydraulic fluid for any period of time or is it
14 available for immediate use?

15 A. It's available. It's available.

16 Q. Do you have anything to do with -- I
17 think the answer is no, but do you have anything
18 to do with deploying anchors?

19 A. No.

20 Q. As engineer you wouldn't know if
21 anchors are deployed or not, would you?

22 A. No.

23 Q. Fair enough. I want to go over -- we
24 mentioned briefly that you had periodic
25 inspection and tests. So I have assembled a

1 number of documents. I'm going to just hand
2 them to you and ignore the pink highlights that
3 I have put on here.

4 I'll mark as Exhibit 8 a group of
5 documents, and just in general my -- are these
6 records that are kept showing the periodic
7 testing, and I've highlighted parts that refer
8 to the steering system.

9 A. Every three months tests are related
10 to the steering gear.

11 Q. Right. And I think there's some
12 weekly and some daily?

13 A. Yes. There is daily checks.

14 Q. Okay. And I'll mark as Exhibit 9,
15 this is Inspecting and Testing and I've tried to
16 highlight in pink what I thought might have
17 something to do with the steering system.

18 A. Yes. Daily equipment test and
19 checks. By this it means that daily equipment
20 we are taking into consideration engine room as
21 a whole, and one part of this tests and checks
22 are the first to the steering gear.

23 Q. Okay. And so insofar as the tests
24 and checks, is it fair to say that the component
25 that seems to have failed in the steering system

1 that led to the bump that you felt in the hole
2 in the bulbous bow is something that you don't
3 regularly check for, is that true?

4 A. Yes. Electrical components are
5 designed to work without any further
6 maintenance.

7 Q. What you are saying is there's no
8 maintenance involved on the electrical side from
9 your --

10 A. From my side, no.

11 Q. From your side, right. Okay. Can
12 you recall whether or not -- it seems like the
13 failure was a relay, correct?

14 A. Yes.

15 Q. And what is your understanding of
16 what that -- the relay that failed does?

17 A. What it does?

18 Q. Yeah.

19 A. It release electrical power to
20 solenoid valves.

21 Q. Does it open and close the valves
22 that allow hydraulic fluid to go to the pistons?

23 A. Indirectly.

24 Q. Explain that.

25 A. Indirectly because relay when it's

1 connected or disconnected, it gives an
2 electrical power or cuts the power on coil, and
3 the coil activated the hydraulic piston inside,
4 piston, the solenoid valve piston, and that
5 piston release oils, so it's indirectly.

6 Q. It's indirectly but the system won't
7 work without it?

8 A. Yes.

9 Q. And would you classify it as an
10 electrical component?

11 A. Yes, it is electrical component.

12 Q. And it was detected by a multimeter
13 that looks like identified that --

14 A. Yes, by continuity test.

15 Q. Continuity test?

16 A. Yes.

17 Q. So if we -- I believe that both of
18 the relays, number one and number two, were
19 taken off, so if we did a continuity test, the
20 one that was -- the one that was taken off that
21 wasn't bad would --

22 A. It will show that it shorted.

23 Q. Shorted, right. It will show
24 continuity where the normal position --

25 A. Yes.

1 Q. -- of the one that was bad; is that
2 right?

3 A. Yes. It was tested by Mr. Darius,
4 the service engineer.

5 Q. Understood. How often are the relays
6 tested?

7 A. Tested?

8 Q. Tested.

9 A. They are not tested.

10 Q. How often are they replaced?

11 A. To my knowledge they are replaced
12 when they are shorted or whatever, yeah, when
13 they broke.

14 Q. All right. Do you know whether or
15 not there's any periodic replacement -- if
16 there's any periodic replacement of relays, is
17 that something you have ever heard of?

18 A. No, I haven't heard.

19 Q. You've explained that when there is a
20 power loss, that the generator comes on and in
21 turn supplies auxiliary or emergency power to --
22 but only if you're running on pump No. 1,
23 correct?

24 A. Correct.

25 Q. Would you consider -- does this ship

1 have -- would you consider the system number two
2 auxiliary -- an auxiliary system, I don't know
3 exactly how to word it, but would you consider
4 that to be an auxiliary steering system?

5 A. No. Only number one. Only number
6 one.

7 Q. I'm going to show you a document I've
8 marked as Exhibit 10 and this is a two-page
9 document it was I think JAMAL [sic] TOPIC. I
10 can't really read the first page of it but I
11 think they go together. This was some of the
12 documents that were produced by the ship. My
13 question to you is does that identify the width
14 of the rudder stock in the way of the tiller?

15 A. This is diameter.

16 Q. Diameter, okay. Sorry. The
17 diameter. And what is the diameter according to
18 the document?

19 A. 364.6 millimeters.

20 Q. 364.6 millimeters.

21 A. Yes.

22 MR. HAROWSKI:

23 Just for the record, that was

24 Bates No. JALMA TOPIC 38 and 39.

25 MR. FLOTTE:

1 Great. Thank you. If you don't
2 mind I'm going to mark it on there
3 because it was kind of -- I couldn't
4 read it. So we have 38 and 39. I
5 thought it was a two-page document.
6 That might help.

7 BY MR. FLOTTE:

8 Q. I'm going to show you a document that
9 hasn't been produced by your counsel. I'm going
10 to show it to him first, and I've marked it as
11 Deposition Exhibit 11, and this is Rules and
12 Regulations of Classification Society of Ships
13 from Lloyd's Register, and I have a question
14 about Section 6, and we can take a minute to go
15 off the record if you want or look at it because
16 I'm -- we pulled this yesterday just to try to
17 figure it out. Let's go off the record.

18 (Off-the-record).

19 BY MR. FLOTTE:

20 Q. We can go back on the record. I'm
21 showing you a document we've marked as Exhibit
22 11, and particularly with respect to the section
23 on emergency power, can you tell us whether that
24 Section 6 applies to your ship? That's the
25 first question.

1 A. I don't think so.

2 Q. Can you tell us whether or not the
3 JALMA TOPIC is equipped with what is set forth
4 in that section? And if you don't know the
5 answer, just tell us.

6 A. Can you repeat, please.

7 Q. Yes. In other words, regardless of
8 whether it applies or not -- the rudder stock --
9 I'm sorry, the question is do you know whether
10 or not Section 6 applies to -- if the equipment
11 on your ship --

12 A. I don't know. I don't know.

13 Q. All right. So now I'm going to ask
14 you some shorter questions, so just -- all
15 right. From Exhibit 10 have we established that
16 the rudder stock is over 230 millimeters in
17 diameter in the way of the tiller?

18 A. Yes.

19 Q. Insofar as the propulsion, does the
20 propulsion for the JALMA TOPIC exceed 2500
21 kilowatts?

22 A. Yes. It's above.

23 Q. Above. When you have a loss of -- I
24 don't know if I can read it. The ship has
25 equipment that would allow the ship to sail --

1 strike that. Was the JALMA TOPIC able to sail
2 normally using the No. 2 pump system?

3 A. Yes, it is.

4 Q. Before being repaired?

5 A. Yes, it is.

6 Q. Okay.

7 A. It's just not connected to emergency
8 source of power, so if you have power loss, we
9 are without the rudder.

10 Q. Okay. If I understand the way it's
11 set up, if you have a main power loss, then
12 generator power will come on, but if you have a
13 loss of power as occurred with the relay
14 failure --

15 A. It's not power loss.

16 Q. It's not a power loss?

17 A. Relay failure is not power loss.

18 Q. It's an electric failure but it's not
19 a power loss?

20 A. Exactly.

21 Q. So there's nothing that would -- the
22 system as it exists is not designed to
23 automatically switch from one steering pump to
24 another?

25 A. No.

1 Q. Okay. I understand. How long does
2 it take to switch steering pumps to go from if
3 you're running on steering pump No. 1 and you
4 want to switch to steering pump No. 2, first
5 what do you have to do?

6 A. I have to push the button to start it
7 and that's it.

8 Q. Push the button to start it --

9 A. Yes.

10 Q. -- and then when you start steering
11 pump No. 2 --

12 A. The pump is started and it's ready
13 for immediate use.

14 Q. Okay. Well, do you have to turn off
15 pump No. 1 or can they both run at the same
16 time?

17 A. First I would start pump No. 2 and
18 then I will turn off the pump No. 1.

19 Q. Okay. About how long does that take?

20 A. A few seconds.

21 Q. Like two or three seconds?

22 A. Let's say five.

23 Q. Five seconds, okay. And that wasn't
24 done in this instance because nobody knew that
25 there was a bad relay; is that correct?

1 A. I can answer you from the engine room
2 state.

3 Q. That's all I'm saying.

4 A. I did not have any alarms whatsoever
5 until I received captain's call. To my
6 knowledge that was my first impression that
7 something is going on.

8 Q. Okay. If there's a relay that goes
9 out, would you expect to receive an alarm?

10 A. Sorry, can you --

11 Q. Yeah, when a relay like this goes
12 out, would you expect to receive an alarm other
13 than from the bridge saying our rudder doesn't
14 work?

15 A. No. The system is not designed that
16 way. It's not -- like I said, I have no voltage
17 of power loss on the pump alarm. I don't have
18 relay fault or something.

19 Q. All right. On the day of the
20 accident, and I think we covered this in an
21 indirect way from your statement, but were you
22 ever -- before you felt the bump, did you
23 receive a command to switch from steering pump
24 No. 1 to steering pump No. 2?

25 A. No, I did not receive that command.

1 Q. And was anybody communicating with
2 the bridge on the engine room telephone other
3 than you?

4 A. No. Only me.

5 Q. So if a call was made from the bridge
6 to the engine room to switch from steering pump
7 No. 1 to steering pump No. 2 on the day of the
8 accident, the morning of the accident, you would
9 know about it?

10 A. Yes. Of course.

11 Q. Okay. Did you receive any other
12 commands from the bridge other than what you
13 have covered in your statement and your
14 testimony today?

15 A. No.

16 Q. And now I'm talking about in the
17 moments leading up to the bump?

18 A. Yeah. Only manual stop that was the
19 only command.

20 Q. Manual stop?

21 A. Yes.

22 Q. So you weren't given a command to
23 utilize emergency steering before you felt the
24 bump?

25 A. No. Only manual stop that was the

1 only order. I didn't have any other orders.

2 Q. What do you consider to be emergency
3 steering? Is the word "emergency" or "EMG"
4 shown on any of your control panels?

5 A. There is instruction how to perform
6 it down in the steering gear locally where the
7 emergency steering is performed.

8 Q. And does that entail using steering
9 pump No. 2?

10 A. You can use whatever pump you want on
11 emergency steering.

12 Q. So there's not one designated --

13 A. No. For emergency steering they are
14 independent system, but however we can use
15 emergency steering on both pumps.

16 Q. You can use both pumps, either pump?

17 A. You can use emergency steering on
18 both pumps but we cannot use two pumps in the
19 same time.

20 Q. So if you happen to be running on
21 using the system that includes pump No. 1, then
22 the emergency steering would be pump No. 2, but
23 if you --

24 A. No. Emergency steering -- pump have
25 to work if you want to perform emergency

1 steering. The motor have to run the pump. You
2 understand?

3 Q. No, I don't.

4 A. You have got the pump that gives us
5 hydraulic pressure.

6 Q. Correct.

7 A. That pump is powered by electrical
8 motor.

9 Q. Correct.

10 A. So electrical motors have to run,
11 have to push the pump to achieve hydraulic
12 pressure, and if that is not -- you know, if you
13 don't have that situation, you cannot perform
14 nothing.

15 Q. Correct.

16 A. Yes.

17 Q. So I think what you're saying is
18 there's no one pump that's designated as -- I
19 say "pump." Neither system is designated as
20 emergency steering, just simply --

21 A. No.

22 Q. -- whatever is the system other than
23 the one you happen to be using, correct?

24 A. Yes. So only difference between pump
25 No. 2 and No. 1 is that pump No. 1 is using a

1 maneuvering because he's connected to emergency
2 switchboard, so in the power loss we have got
3 power on the steering gear.

4 Q. So just to make sure that the court
5 reporter got that down, the emergency power will
6 come on if there's loss of main engine while
7 you're running on pump No. 1 and it will power,
8 but if you happen to be running on pump No. 2 on
9 that system, the emergency power will not come
10 on to service automatically?

11 A. No, but --

12 Q. Have I correctly stated it?

13 A. Yes. But power loss, it's not loss
14 of the main engine.

15 Q. Loss of the main engine?

16 A. Power loss it's a blackout, losing of
17 electrical power all over the vessel.

18 Q. So in other words, it's not simply a
19 relay that lacks continuity. In order for it to
20 be triggered, it would have to be a complete
21 loss of main engine power, correct?

22 A. Not main engine. Main engine you
23 are -- when you lose main engine you are losing
24 propulsion. You are losing propulsion power.
25 We are talking about electrical power.

1 Q. Okay.

2 A. When we lose generators, main
3 generators, auxiliary generator or emergency
4 generator starting and provides the power for
5 the steering gear pump No. 1. So that is clear.

6 Q. So auxiliary generators will come in
7 but only come into play automatically if you are
8 running off of the system that includes pump No.
9 1 rather than the system that includes pump No.
10 2, is that true? Or have I misstated it?

11 A. Now you are just confusing me a
12 little bit.

13 Q. I'm just trying to make sure that the
14 court reporter gets everything down, so I'm
15 trying to repeat it and I may not be using the
16 right words. So can you explain it -- pardon
17 me, but explain it one more time real slow.

18 A. Emergency power, what it means --

19 Q. Emergency power.

20 A. Emergency power, it comes from the
21 emergency generator in case of electrical power
22 loss on the vessel.

23 Q. Okay.

24 A. And it supplies power for each and
25 every consumer which is on emergency

1 switchboard. Among other consumers steering
2 pump No. 1 it's there on emergency switchboard.

3 Q. So, for example, let's just say, you
4 know, somebody has an accident and cuts
5 something, an electrical line in the hold, the
6 electrical power shorts out but your main engine
7 is still running.

8 A. No, it's not running.

9 Q. It's not?

10 A. It's not running because it cuts
11 devices that main engine needs which runs by
12 means of electricity, electrical.

13 Q. What would cause a loss of power
14 without a loss of propulsion?

15 A. You cannot -- you cannot divide that,
16 because if you lose electrical power, you will
17 lose propulsion.

18 Q. Correct.

19 A. If you lose main engine or propulsion
20 power --

21 Q. Right.

22 A. -- it doesn't -- you don't lose
23 electrical power, no.

24 Q. So you have a main generator, an
25 auxiliary generator, are you saying it comes on

1 if you lose the main generator?

2 A. Yes. If you lose main generator,
3 emergency generator jumps in and provides power
4 for devices that we need to restart the system.

5 Q. I see.

6 MR. FLOTTE:

7 Let's go off the record.

8 (Off-the-record).

9 BY MR. FLOTTE:

10 Q. So -- and I apologize I don't have
11 multiple copies of this, but this is part of the
12 operations manual and this talks a little bit
13 about -- most of what I'm going to ask you has
14 to do with you pushing on the rod and to get a
15 little bit more of an explanation on that.

16 A. About emergency steering.

17 Q. The emergency steering, yeah. It
18 says: "The steering gear can be operated by the
19 following methods assuring correct and easy
20 handling," and it looks like "changing." I
21 think that's what they're saying. And it says:
22 "Automatic steering by remote control in the
23 wheelhouse" is number one.

24 A. Yes.

25 Q. We talked about that. "Hand steering

1 remotely in the wheelhouse."

2 A. Yes.

3 Q. We talked about that. And then the
4 part that I'm going to need a little bit of help
5 on and a little bit of confused on is 3, "local
6 steering in gear room by manual operation of
7 solenoid valve."

8 A. Yes. Exactly.

9 Q. And --

10 A. I think that refers to emergency
11 steering.

12 Q. Emergency steering?

13 A. Yes.

14 Q. Right. And it goes on to say -- I'm
15 trying to get to make sure we're looking at the
16 same parts. "Local steering," I'm going to show
17 you this in a second, but it says: "Failure of
18 the control system in the wheelhouse or
19 bridge --

20 A. Yes.

21 Q. -- or during the adjustment operation
22 of the steering gear, the steering gear can be
23 operated by local steering in the steering gear
24 room," and I think that there's a little bit of
25 a procedure to do that. And it says: "Keep

1 steering in the steering gear" --

2 A. "Keep on running the hydraulic pump."

3 Q. "Keep on running the hydraulic pump."

4 A. "Disconnect the autopilot by
5 switching off the control source."

6 Q. Now, you weren't running autopilot,
7 correct?

8 A. No. Every time when you do emergency
9 steering, you have to disconnect autopilot.
10 Otherwise, you cannot do emergency steering.

11 Q. But the morning of the accident was
12 autopilot being used?

13 A. Yes. Everything was remotely from
14 the bridge.

15 Q. And that's what you're calling
16 autopilot?

17 A. Yes. It's one function of the system
18 that have to be on when you are using remote --

19 Q. Okay.

20 A. -- remote operation from the bridge.

21 Q. Okay. And we're going to get to our
22 show and tell in a minute. It says: "Move the
23 rudder by pushing either the push rod in the
24 solenoid of the solenoid valve -- I'm sorry, I'm
25 not good at reading upside down. "Move the

1 rudder by pushing either the push rod --
2 MR. HAROWSKI:
3 "Either push rod."
4 BY MR. FLOTTE:
5 Q. "Either?"
6 MR. HAROWSKI:
7 "Either push rod."
8 BY MR. FLOTTE:
9 Q. "Either push rod" --
10 A. I will show you here.
11 Q. "Either push rod in the solenoid --
12 of the solenoid valve." Is this supposed to be
13 "or, "or the solenoid valve?"
14 A. Yes.
15 Q. That's supposed to be "or" or is that
16 supposed to be "off?"
17 A. Off.
18 Q. So what do we have in front of us on
19 the table?
20 A. So this is hydraulic part here
21 (indicating).
22 Q. Okay.
23 A. This is hydraulic part.
24 Q. Hydraulic port?
25 A. "Part." This is part. This is the

1 coils, coils for port side, coil for starboard
2 side.

3 Q. All right.

4 A. When we do emergency steering or
5 local steering, so it's like stated here
6 autopilot off. It's just one breaker to push it
7 off one second and then what we are doing. This
8 is the coil. This is the push rod.

9 Q. The push rod is like three inches
10 long?

11 A. Not exactly but something like that.
12 So what we are doing, we are pushing it here
13 (indicating).

14 Q. And when you push it, it acts kind of
15 like a joy stick or like the toggle?

16 A. You will feel the spring inside.

17 Q. You feel it when you compress the
18 spring?

19 A. Yes, when I do that. For example, on
20 starboard side when I do it like this and I push
21 it inside of this part, I move the disc
22 hydraulic piston and release the oil flow so
23 that rudder can go on starboard side.

24 Q. Understood.

25 A. For example, I'm pushing it, I'm,

1 let's say, holding it for ten seconds, the
2 rudder is on 14 starboard. When he ordered
3 amidship, I'm transferring on starboard side and
4 watching rudder indication over there and I'm
5 holding it until rudder reach zero.

6 Q. So there's a rudder indicated within
7 view so that --

8 A. Yes, yes. Everything is in place.
9 This headset for communication with bridge, this
10 solenoid valve and rudder indicator, everything
11 is in front of you.

12 Q. I'm going to just mark this Exhibit
13 12 which we've been reading from, and if you
14 don't mind, I'd like to take a snapshot of
15 that -- why don't you stick the thing in and I
16 just want to -- just so there is some reference
17 point. That way we'll understand. We're going
18 to call that a photo of the solenoid valve
19 Exhibit 13.

20 I show you what I have marked as
21 Exhibit 14. Just so we have a reference point,
22 is the solenoid valve we just took a picture of,
23 is that right down here?

24 A. Solenoid control valve, yes, this
25 is --

1 Q. Circle it.

2 A. This here is what you're talking
3 about and this here (indicating).

4 Q. And you've made two circles in ink on
5 Exhibit 14 to show what you've --

6 A. This is solenoid valve in combination
7 with two coils, but as a whole we are calling it
8 solenoid valve.

9 Q. And the force that you exerted with
10 the push rod depresses the spring which has the
11 effect of substituting for the --

12 A. Yes.

13 Q. -- electric power that would -- is
14 not available?

15 A. Imagine like this, here on this coil
16 it depends when on automatic, when on automatic
17 when water is from the bridge whatsoever, for
18 example, 10 starboard this coil gets energized,
19 gets energized and it's pushing this rod by
20 means of electrical power and that is automatic.
21 On emergency or local steering, I'm doing the
22 same thing basically but only with my hand.

23 Q. Right. And from the time you -- if
24 you received an order from the bridge to say go
25 hard starboard and you did what you just did,

1 pushed whatever buttons, how long would it take
2 you to, using the push rod, get a hard
3 starboard?

4 A. It wouldn't be possible. My opinion
5 is it wouldn't be possible in that one minute
6 and a half to run over there to shut the
7 autopilot and to perform emergency steering.

8 Q. So what do you have to do in order to
9 shut off the autopilot?

10 A. I have to put the breaker down.

11 Q. Put the breaker down?

12 A. Yes.

13 Q. And when you put a breaker down, what
14 are you shutting off?

15 A. I'm shutting autopilot off. Let's
16 say to be more exact, I'm shutting electricity
17 on these coils.

18 Q. And you have to do that before you
19 stick the push rod in the hole?

20 A. Yes. Then I have to, but, first,
21 firstly what I have to do, I have to put a
22 headset on, I have to call the bridge.

23 Q. You said a headset?

24 A. Headset, yes, because I cannot see.
25 I'm in steering, you know, I have to receive

1 orders. I have to receive orders. I have to
2 put headset, what they want, which position of
3 the rudder they want, and then I can proceed
4 with emergency steering.

5 Q. So if they -- how long do you think
6 if the -- let's just say that the master called
7 you and instead of saying stop, emergency stop,
8 they said go to emergency steering and give me
9 starboard 20 degrees, how long do you think that
10 would take you to achieve that doing everything
11 that you needed to do?

12 A. Let's say about two minutes.

13 Q. About two minutes?

14 A. Maybe 15 seconds less or something
15 because I have to run -- I'm in control room.
16 He's calling me in control room. I have to run
17 to the steering gear room. I have to stop with
18 the communication with the bridge. I have to
19 shut the autopilot off because otherwise it
20 won't work and then do as ordered, yes.

21 Q. Have you ever had to use emergency
22 steering in a real emergency rather than just
23 training?

24 A. No. Only by means of testing it.

25 Q. Have you ever had any training or

1 practice, in other words, emergency response
2 practice to try to say look, this is what we
3 might do if we needed to do emergency steering?

4 A. Actually we are trained in emergency
5 steering, emergency steering how to perform it
6 and everything, but that's it, but in this case
7 we didn't have time. We didn't have time.

8 Q. And when you say you didn't have
9 time, you didn't time from the time that you
10 received the order for full stop until you felt
11 the bump?

12 A. Yes. Yes, that is the time.

13 Q. All right.

14 A. It's too short.

15 Q. Do you know what was going on in the
16 bridge before you received that call?

17 A. I didn't have any other whatsoever in
18 engine room.

19 Q. Understood.

20 A. When I reached call for manual stop,
21 then, you know, then I'll know that something is
22 going on. That's it.

23 Q. Understood.

24 MR. FLOTTE:

25 Let's go off the record.

1 (Off-the-record)

2 BY MR. FLOTTE:

3 Q. Let's go back on. If there is a
4 switch from follow-up steering to non-follow-up
5 steering, is that something that is done by the
6 people on the bridge or do they have to involve
7 you for that?

8 A. No, they don't have to involve me
9 because it's only located on the control stand
10 on the bridge where the helm is located.

11 Q. If the master or the officer, the
12 officer on watch are switching from follow-up
13 steering to non-follow-up steering, does that in
14 any way change which steering pump you're using?

15 A. In this case -- in this case what
16 happened to us it doesn't change nothing. We
17 still didn't have signal on our coils, and when
18 he put on non-follow-up, nothing is happening
19 also. There is no change because of that relay
20 loss.

21 Q. But I want to make sure that I
22 understand follow-up, non-follow-up compared to
23 steering -- the system involving steering pump
24 No. 1 and the system involving steering pump No.
25 2. So correct me if I'm wrong, but you can have

1 non-follow-up steering or follow-up steering on
2 pump No. 1, correct?

3 A. Yes.

4 Q. And you can have follow-up or
5 non-follow-up on pump No. 2, correct?

6 A. Correct.

7 Q. And if you switch back and forth, it
8 doesn't change pumps, true?

9 A. No, it doesn't change pumps. It
10 reacts only on pump which is still working.

11 Q. In other words, it simply changes the
12 manner in which the signal is sent --

13 A. Exactly.

14 Q. -- that involves the same pump?

15 A. Exactly.

16 Q. Insofar as the push rod is concerned,
17 is that something that on the day of the
18 accident -- strike that. No push rod was done
19 on the day of the accident, right, in other
20 words, no emergency steering?

21 A. No.

22 Q. And there was no command given to you
23 from the helm from the captain?

24 A. The only command that I receive was
25 manual stop.

1 Q. Right. But no command to --

2 A. No any other.

3 Q. All right. After the accident when
4 you did use the push rod and were able to move
5 the rudder to starboard, is that something that
6 you did personally or is that something someone
7 under your direction did?

8 A. No, I did it personally. Because me
9 as chief engineer, I like to see what is going
10 on.

11 Q. Correct.

12 A. What is going on.

13 Q. And you can feel the tension of the
14 spring?

15 A. Right. I'm strong.

16 Q. Let's just say the spring was broken,
17 you would feel there was no tension?

18 A. Yes.

19 Q. You can feel it's working normally by
20 pushing on --

21 A. The only reason why I've done it. I
22 know that we had an issue. I want to do it
23 because when I do on emergency steering, I
24 exclude hydraulic part from electrical.

25 Q. Correct.

1 A. And the next time when I tried to do
2 this with this rod, that time I was sure that is
3 not hydraulically-related problem. It's
4 electrical. And then we go further and further
5 with service engineer until we found what we
6 found.

7 Q. You narrowed it down from -- you
8 excluded the hydraulic issue?

9 A. Excluded it when I do the emergency
10 steering.

11 Q. Emergency steering using the push
12 rod.

13 A. Yes.

14 MR. FLOTTE:

15 Let's go off the record.

16 (Off-the-record).

17 BY MR. FLOTTE:

18 Q. Let's go back on the record. Do you
19 have any idea when the relay was put in, the one
20 that failed?

21 A. No.

22 Q. When was it installed?

23 A. When was it installed?

24 Q. Yeah.

25 A. No. I don't know that.

1 Q. And insofar as -- let's talk about
2 training on emergency steering. You received
3 training on how to do emergency steering or in
4 the way of drills, or not really?

5 A. Yes, we are training emergency on the
6 spot.

7 Q. On the spot?

8 A. On the spot, yes, during navigation.

9 Q. Have you had any training that
10 included bridge personnel with --

11 A. We are all together down in the
12 emergency steering when we are performing that.

13 Q. Okay. Have you had drills where
14 there's somebody using communications from the
15 bridge and you're in the engine room and
16 performing emergency steering using a push rod?

17 A. That is all the part of emergency
18 steering and it's always -- we are always
19 performing it, communication with the bridge,
20 crew are changing on the push rods and do as
21 ordered from the bridge. It's part -- it's as a
22 whole. We have to do it like that.

23 Q. During the last -- the four months
24 that you were on this ship, have you had any
25 training that dealt with emergency steering that

1 included both engine room and bridge personnel?

2 A. Yes.

3 Q. And where would we find records that
4 show that?

5 A. I think some of the deck officers.

6 Q. Deck officers?

7 A. When we check it, we are checking
8 this also. We are checking this also prior to
9 entering into U.S. waters each and every time.

10 Q. So when you say "we're checking
11 this," you're checking what?

12 A. I'm checking pump No. 1. I'm
13 checking pump No. 2. And we are checking
14 emergency steering and the movement of the
15 rudder from hard starboard to hard port by 10,
16 20, 30 degrees, 35 hard over on each side, on
17 both, on both ways, locally and remotely.

18 Q. And the best of your recollection, is
19 there any documentation that would be prepared
20 to show when you're testing emergency steering?
21 In other words, we marked some pages there, but
22 I don't see anything specifically that talks
23 about emergency steering.

24 A. We have this prior to entering into
25 U.S. waters when we are testing it. It's called

1 primary and secondary steering gear tests.

2 Q. Primary and secondary?

3 A. Yes.

4 Q. Let's look and see. Is this on any
5 of the things we marked?

6 A. It's not here.

7 Q. So we should look for or ask for
8 primary and secondary steering gear tests?

9 A. It should be. If you give me a
10 minute I will bring it. I will bring it.

11 MR. FLOTTE:

12 Yeah. And let your counsel see
13 it first.

14 (Off-the-record).

15 BY MR. FLOTTE:

16 Q. I'll mark this as Exhibit 15 it says
17 U.S. Coast Guard Rules and Regulations. It
18 bears the stamp of the JALMA TOPIC and it looks
19 like it's within 12 hours. It says: "Within 12
20 hours prior to entering U.S. territorial waters,
21 the following tests must be carried out," and
22 then there's a list of five things, and these
23 are dated July 11, 2021 is the last one.

24 There's one 22-June-2021, 6-June-2021, and
25 12-May-2021. So I've marked those, sort of, in

1 globo as Exhibit 15.

2 Am I correct in understanding that
3 these are records that you have kept on the
4 testing, the emergency steering testing you've
5 talked about?

6 A. Yes. Primary, remotely and
7 emergency, so we test both modes.

8 Q. So it says: "Primary and secondary
9 steering gear." So tell me what you did on,
10 I'll just take the last one, this is July 11th,
11 2021, a couple of days before the accident?

12 A. This is the day before.

13 Q. The day before, excuse me. I stand
14 corrected.

15 A. This is the day before we checked
16 remotely steering system from the bridge.

17 Q. So what does that mean?

18 A. By the helm. It means on helm.

19 Q. So your part, do you stay in the
20 engine room when that happens?

21 A. My part, yes.

22 Q. So you are communicating with the
23 bridge and they are telling you we're testing
24 the system and you see the rudder indicator
25 move?

1 A. When remotely. I'm just in the -- I
2 have this headset and I'm communicating with
3 them and they are changing it remotely. I'm
4 just confirming rudder indicator and that there
5 is no noises or whatsoever problems down there
6 on machinery part.

7 Q. Okay.

8 A. And then after we done it, then we
9 transfer it. I shut the autopilots down. I'm
10 still in connection with the bridge.

11 Q. In communication?

12 A. In communication, yes, and --

13 Q. And what did you do next?

14 A. They are giving me orders. They are
15 always different, 10 port, 15 port, 20 starboard
16 hard over and then we perform emergency testing
17 on both units.

18 Q. When you did emergency testing on
19 both units, that means both the No. 1 --

20 A. Yes. I finish --

21 Q. -- and the No. 2?

22 A. I finish with No. 1, then I proceed
23 with No. 2.

24 Q. And is that when you are doing the
25 emergency testing you've described the day

1 before the accident, was that using a push rod
2 or is that --

3 A. Emergency is when you are using the
4 push rods.

5 Q. Yes?

6 A. Yes, it is.

7 Q. And it responded normally?

8 A. Yes.

9 Q. Correct?

10 A. Yes.

11 Q. And it so states -- this is doing the
12 test, but what you're saying is have you ever
13 had a problem when doing the tests whether it
14 was some issue?

15 A. No, we did not.

16 Q. If there was a problem, is there a
17 place where it would be recorded?

18 A. Probably not. Probably not. There
19 is only "no power alarm" but it will be recorded
20 because we will report it to our company and
21 probably we will anchor on Southwest Pass and
22 wait to recover this because we will never go
23 upstream.

24 Q. Do you keep an engineer's log?

25 A. Yes, I do.

1 Q. So if there was an issue with the
2 steering, let's just say there was, you know,
3 not really sure why but it turns out to be a
4 relay, what document would that problem be
5 recorded?

6 A. It will be visible from my
7 communication with the company by e-mails and I
8 will enter in my logbook that I have got that
9 time when I don't know what it is, what is
10 actual problem, I will just write it that I have
11 steering gear problem with unit, No. 1 in this
12 case, and after it's rectified, I will write it
13 what it is in short terms in logbook, but
14 however I will have communication with the
15 company and company's communication with service
16 engineers or the maker getting the advices of
17 whatsoever how to do it.

18 Q. So to summarize, during the four
19 months that you were on the ship, if you had,
20 leading up to this, if there was a mechanical
21 issue like happened here, it would be recorded
22 in that book and your recollection is there was
23 nothing?

24 A. No. There was nothing.

25 MR. FLOTTE:

1 We will go off the record.

2 (Off-the-record) .

3 BY MR. FLOTTE:

4 Q. So let's go back on the record.

5 Insofar as prior drills and training or just
6 activities that you have had in the past leading
7 up to this, I think what you've said is you
8 don't believe that there was enough time for the
9 master to have given you instructions that would
10 allow you to turn off the autopilot to go do
11 what you needed to do in order to make sure you
12 have communications to get in position to use
13 the push rod and turn it. In any of the
14 training did you -- have you had any discussion
15 with the captain or any bridge personnel that
16 would teach the officer on watch how long it
17 might take engine room personnel to go to
18 emergency steering?

19 A. We did not have.

20 Q. You did not have that discussion?

21 A. No, we did not have that discussion.

22 MR. FLOTTE:

23 Okay. Thank you very much. I
24 appreciate it. I think we're done.

25 - EXAMINATION -

1 BY MR. HAROWSKI:

2 Q. Chief, the relay that was found to be
3 faulty, where is that physically located?

4 A. It's located in the server board.
5 Server board in the steering gear.

6 Q. You said server board?

7 A. Yes, but it's like small drawer with
8 electrical parts, you know, where it's
9 installed.

10 Q. Like a circuit board?

11 A. Yes. It's a part of the circuit
12 board.

13 Q. Okay.

14 A. Because we order a new one, a new
15 circuit board and it comes with two relays
16 installed already on it.

17 Q. And to your understanding, is that a
18 piece that comes originally on the circuit board
19 when the circuit board is obtained?

20 A. Yes, it is. It's a part. Without
21 those relays you actually don't have nothing.

22 Q. And we talked a bit earlier in your
23 deposition about the emergency power, emergency
24 generator and how that relationship is. Just to
25 confirm, was there any loss of power here?

1 A. (Witness nods negatively).

2 Q. So there was no -- was there any need
3 for the emergency generator to turn on?

4 A. We didn't lose main generators. We
5 did not lost the power.

6 Q. And the relay failure isn't a loss of
7 power, it's just sending the wrong signal?

8 A. No, it's not loss of power. You
9 cannot consider a relay breakdown as loss of
10 power because you did not loss power.

11 Consequences of a relay breakdown is that
12 steering gear it's not working, but you did not
13 have loss of power when that happened.

14 Q. Now, is there any maintenance done by
15 the ship's crew to the relay?

16 A. No. You cannot perform -- there is
17 no maintenance for relays. I mean, it's solid
18 state relay, so the word it's saying that there
19 is no maintenance when it's broken or shorted,
20 whatever. When it's not working, you just
21 replace it, buy new one.

22 MR. HAROWSKI:

23 I don't have any more questions.

24 - EXAMINATION -

25 BY MR. FLOTTE:

1 Q. You can switch between pump -- can
2 the bridge switch from pump No. 1 to pump No. 2?

3 A. Yes. They got controls.

4 Q. They just turn -- is it a --

5 A. No. They have to --

6 Q. -- toggle or something?

7 A. It's not toggle. It's part of a push
8 button.

9 Q. I think you said the relays come when
10 you get a new circuit board. Is this the first
11 time you've had a new circuit board since you
12 have been on this vessel or has the circuit
13 board been changed before?

14 A. No.

15 Q. I'm sorry, I asked too long a
16 question.

17 A. No, no, no. It's fine. This is the
18 first time that we are receiving circuit board
19 which includes those two relays.

20 Q. But you did have spares that were
21 available?

22 A. Because relays -- yes, I have two
23 relay spares. Not server board, but a relay you
24 can order as an optional one, optional part, but
25 when you are ordering new server board which

1 controls everything, they are already installed
2 on position.

3 MR. FLOTTE:

4 I understand. That's it.

5 (Whereupon, the deposition was
6 concluded).

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

1 REPORTER'S PAGE

2

3 I, Barbara A. Burger, Certified Court
4 Reporter, in and for the State of Louisiana, the
5 officer, as defined in Rule 28 of the Federal
6 Rules of Civil Procedure and/or Article 1434(B)
7 of the Louisiana Code of Civil Procedure, before
8 whom this sworn testimony was taken, do hereby
9 state on the Record:

10 That due to the interaction in the
11 spontaneous discourse of this proceeding, where
12 necessary, dashes (--) have been used to
13 indicate pauses, changes in thought, and/or
14 talkovers; that same is the proper method for a
15 Court Reporter's transcription of proceeding,
16 and that dashes (--) do not indicate that words
17 or phrases have been left out of this
18 transcript;

19 That any words and/or names which
20 could not be verified through reference material
21 have been denoted with the phrase "spelled
22 phonetically."

23

24

25

REPORTER'S CERTIFICATE

This certification is valid only for a transcript accompanied by my original signature and original required seal on this page.

I, BARBARA A. BURGER, Certified Court Reporter in and for the State of Louisiana, as the officer before whom this testimony was taken, do hereby certify that Stipe Mrgudic, after having been duly sworn by me upon authority of R.S. 37:2554, did testify as hereinbefore set forth in the foregoing 93 pages; that this testimony was reported by me in the stenotype reporting method, was prepared and transcribed by me or under my personal direction and supervision, and is a true and correct transcript to the best of my ability and understanding; that the transcript has been prepared in compliance with transcript format guidelines required by statute or by rules of the board, and that I am informed about the complete arrangement, financial or otherwise, with the person or entity making arrangements for deposition services; that I have acted in compliance with the prohibition on contractual relationships, as defined by the Louisiana Code of Civil Procedure Article 1434 and in rules and advisory opinions of the board; that I have no actual knowledge of any prohibited employment or contractual relationship, direct or indirect, between a court reporting firm and any party litigant in this matter nor is there any such relationship between myself and a party litigant in this matter. I am not related to counsel or to the parties herein, nor am I otherwise interested in the outcome of this matter.

BARBARA A. BURGER
Certified Court Reporter
License #86156

A	ADM 30:9	anybody 60:1	autopilot 13:11	behaving 45:9
A.C 20:7,8,10	administer 27:7	apologize 44:13	13:12,13,14	believe 10:7
20:15,16	administering	66:10	68:4,6,9,12,16	22:16 23:20
ability 93:11	6:20	APPEARAN...	70:6 73:7,9,15	36:2 52:17
able 28:24 43:6	advice 86:16	1:17 2:1	74:19 87:10	87:8
57:1 78:4	advisory 93:16	appears 20:22	autopilots 84:9	Bell 26:19,21,25
aboard 7:20 8:1	aforementioned	applies 55:24	auxiliary 53:21	berth 30:11 48:8
8:23 9:7 11:24	6:5	56:8,10	54:2,2,4 64:3,6	best 81:18 93:11
18:14 31:19	ago 8:20 9:6	appreciate	65:25	better 30:15,16
45:4 48:6	11:7,8,11 12:1	87:24	available 49:14	bilges 34:3
above-mentio...	21:19	appurtenances	49:15,15 72:14	bit 18:2 23:13
7:3	agreed 6:3	1:9	90:21	24:2 33:1,10
accident 21:19	ahead 47:1	area 36:15	aware 31:8	48:11 64:12
23:4,15 25:2	alarm 20:21,24	arrangement		66:12,15 67:4
28:8,14,22	20:25 59:9,12	11:24 17:16	B	67:5,24 88:22
30:5 34:16	59:17 85:19	93:13	B&W 22:23	blackout 63:16
39:15 45:10,11	alarms 59:4	arrangements	baby 15:16	board 13:9,14
59:20 60:8,8	allow 14:12	5:10 93:14	back 10:8,16	13:15 29:24
65:4 68:11	37:23 51:22	Article 92:6	13:17 15:6,9	46:8,8,11,23
77:18,19 78:3	56:25 87:10	93:16	15:21 16:22	47:4 88:4,5,6
83:11 85:1	allowed 6:6	articles 9:11	17:4 18:2	88:10,12,15,18
accidentally	allows 17:12	Ascani 45:6	21:12 28:6	88:19 90:10,11
41:12	alternate 18:16	48:15	35:11 39:5	90:13,18,23,25
accompanied	Ama 30:9	asked 90:15	41:11 43:25	93:13,16
93:3	amidship 43:17	asking 29:3	46:25 55:20	book 86:22
achieve 62:11	71:3	asks 12:22	76:3 77:7	bottom 9:21
74:10	amidships 14:25	assembled 49:25	79:18 87:4	41:3 48:3
achieves 16:5	16:2 43:22,23	assigned 7:22	bad 8:15 52:21	bow 34:16,19
acted 93:14	amount 33:12	assist 44:16	53:1 58:25	51:2
ACTION 1:4	amplifier 45:14	associated 12:11	ballast 29:18,19	breakdown 89:9
activated 41:19	46:18,19,21,22	20:19	29:20,21 35:2	89:11
52:3	47:6	assuring 66:19	35:4	breaker 70:6
activities 87:6	amplifiers 46:17	Attendant 44:23	bar 42:19,19	73:10,11,13
acts 70:14	anchor 29:9	ATTORNEYS	Barbara 2:10	bridge 12:21
actual 86:10	85:21	1:22 2:5	6:18 92:3 93:5	13:25 14:2
93:17	anchorage 28:12	authority 93:8	93:23	15:25 17:12,15
add 33:4	29:2 30:8	authorized	based 10:19	22:11 25:15
added 32:24	anchors 28:20	44:24	37:9	34:19 36:1,7
33:13	49:18,21	automatic 19:25	basically 34:12	36:12 37:25
adding 33:10	and/or 92:6,13	66:22 72:16,16	72:22	38:23 39:23
address 7:13	92:19	72:20	Bates 4:7,9,12	42:15,23 43:16
adjust 29:22	annual 8:11,15	automatically	4:15,18,21,24	46:9 49:8,11
adjustment	answer 6:14	19:10 42:16	5:3,7,16 54:24	59:13 60:2,5
67:21	11:21 49:17	57:23 63:10	bears 82:18	60:12 67:19
	56:5 59:1	64:7	beginning 24:9	68:14,20 71:9

72:17,24 73:22 74:18 75:16 76:6,10 80:10 80:15,19,21 81:1 83:16,23 84:10 87:15 90:2 briefly 49:24 bring 82:10,10 broad 30:19 broke 53:13 broken 78:16 89:19 Buck 1:13 bulbous 34:16 34:18 51:2 bump 35:9,9 36:3 40:2 51:1 59:22 60:17,24 75:11 Burger 2:10 6:18 92:3 93:5 93:23 burnt 35:14 button 26:10,12 49:7,8,10 58:6 58:8 90:8 buttons 73:1 buy 89:21 bypassed 42:11	25:18 30:14 33:25 77:23 87:15 captain's 34:1 59:5 cargo 29:16,23 29:24,25 30:2 Carlo 10:20,23 carried 30:1 82:21 case 7:17 64:21 75:6 76:15,15 86:12 cases 18:19 catch 22:2 cause 65:13 certificate 11:2 11:5,6 93:1 certificates 10:25 certification 6:10 93:3 Certified 2:11 6:18 92:3 93:5 93:24 certify 93:7 change 76:14,16 76:19 77:8,9 changed 90:13 changes 77:11 92:13 changing 18:18 66:20 80:20 84:3 Chapter 4:24 5:5 charter 30:13,13 check 24:9 32:5 34:3,9 45:18 46:6 47:3,10 47:11,20,23 51:3 81:7 checked 40:25 47:6 83:15 checking 31:24	31:25 81:7,8 81:10,11,12,13 81:13 checks 50:13,19 50:21,24 chief 7:19 8:23 11:1 13:17 31:7 78:9 88:2 choose 17:18 circle 27:14 72:1 circles 72:4 circuit 88:10,11 88:15,18,19 90:10,11,12,18 circulate 18:3 49:12 Civil 1:4 6:7 92:6,7 93:16 clarify 12:23 13:3 Class 48:24 Classification 5:9 9:24 55:12 classify 52:9 clean 30:8 clear 15:18 64:5 close 51:21 closed 47:7 Coast 4:12,18 5:18 34:13 47:24 82:17 Code 92:7 93:15 coil 35:14 40:9 40:10,15,16,18 41:21 52:2,3 70:1,8 72:15 72:18 coils 13:7,8 42:13,17,20 70:1,1 72:7 73:17 76:17 collision 35:8 combination 72:6 come 10:16 26:2	28:24 34:14 43:25 57:12 63:6,9 64:6,7 90:9 comes 15:8 53:20 64:20 65:25 88:15,18 coming 28:12,12 31:14 39:6 40:1 44:16 command 45:8 46:6,25 47:3,5 59:23,25 60:19 60:22 77:22,24 78:1 commands 60:12 communicating 60:1 83:22 84:2 communication 71:9 74:18 80:19 84:11,12 86:7,14,15 communicatio... 80:14 87:12 company 5:2 10:13,14,16 85:20 86:7,15 company's 86:15 compared 76:22 compartments 36:16 complete 47:20 63:20 93:13 completely 11:16 compliance 93:12,15 component 11:13 12:3,5 50:24 52:10,11 components 31:4,21 51:4	compress 70:17 computer 21:16 21:17,21 concerned 77:16 concluded 91:6 confirm 37:2 88:25 confirming 84:4 confused 67:5 confusing 64:11 connected 18:22 18:23 25:15 52:1 57:7 63:1 connection 5:6 84:10 Consequences 89:11 consider 53:25 54:1,3 61:2 89:9 consideration 50:20 consist 12:20 console 17:12 26:11 consumer 64:25 consumers 65:1 contact 43:15 47:7 Continued 2:1 continuity 52:14 52:15,19,24 63:19 continuously 23:8 contractors 44:15 contractual 93:15,17 control 12:21 13:25 14:2 15:10 16:14 18:5 25:15 35:4 36:8,9 49:7 61:4
C				
Calculation 5:6 call 25:6 29:12 59:5 60:5 71:18 73:22 75:16,20 called 13:25 27:7 34:2 36:22 44:9 74:6 81:25 calling 68:15 72:7 74:16 Canal 1:20 captain 25:6,10				

66:22 67:18 68:5 71:24 74:15,16 76:9 controlling 16:24,25 controls 18:21 46:12,15,23 90:3 91:1 cooling 36:25 COOPER/T.S... 1:5 copies 66:11 copy 7:8 corn 30:3 correct 12:8 17:10,14,24 19:8 22:24 23:8,16 24:22 25:8,12 27:9 32:2,22 37:14 38:20 39:6,9 39:15,16 40:14 45:11 46:9 47:10 51:13 53:23,24 58:25 62:6,9,15,23 63:21 65:18 66:19 68:7 76:25 77:2,5,6 78:11,25 83:2 85:9 93:10 corrected 83:14 correctly 13:19 63:12 corresponds 47:16 counsel 6:4 55:9 82:12 93:19 couple 83:11 course 13:7 29:10 31:9 39:21 43:24 60:10 court 1:1 2:11 6:18 7:3,17	12:22 63:4 64:14 92:3,15 93:5,18,24 cover 14:10 covered 39:8 59:20 60:13 cracked 33:8 CRESCENT 1:4 1:22 crew 4:7 7:9 29:12 34:2 80:20 89:15 Croatia 1:12 7:15 Crystal 44:24 CURRAULT 1:9 cuts 52:2 65:4 65:10 cylinder 42:25 cylinders 12:14 <hr/> D daily 50:12,13 50:18,19 Darius 45:4,5 48:12,14,15 53:3 dashes 92:12,16 data 20:19 21:6 22:6,9,14 date 48:1,2 dated 5:18 82:23 David 1:19 day 1:14 28:13 28:15 48:16,20 59:19 60:7 77:17,19 83:12 83:13,15 84:25 days 7:24 31:18 83:11 dealt 80:25 deck 33:6,9 81:5 81:6 DEFENDANT	2:5 defined 92:5 93:15 deflection 15:12 15:14 degrees 74:9 81:16 denoted 92:21 department 36:24 depends 49:4 72:16 deployed 49:21 deploying 49:18 deposition 1:12 4:5 6:5,15 55:11 88:23 91:5 93:14 depresses 72:10 described 84:25 design 18:9,10 designated 32:16 61:12 62:18,19 designed 39:12 43:14 51:5 57:22 59:15 destination 30:7 details 47:24 detected 52:12 devices 65:11 66:4 Diagram 5:16 diameter 54:15 54:16,17,17 56:17 DICKER 2:3 difference 62:24 different 45:19 84:15 direct 43:15 93:17 direction 42:22 78:7 93:10 directly 25:14	30:10 disc 70:21 disconnect 68:4 68:9 disconnected 52:1 discourse 92:11 discussion 28:7 87:14,20,21 DISTRICT 1:1 1:2 disturbances 23:10 24:25 divide 38:1 65:15 dock 8:2,4,10,14 8:17,20 9:1,2,6 11:11 document 4:17 9:19 26:17 44:1,8 54:7,9 54:18 55:5,8 55:21 86:4 documentation 81:19 documents 50:1 50:5 54:12 doing 13:23 42:12 43:4 70:7,12 72:21 74:10 84:24 85:11,13 [REDACTED] 1:12 7:15 doors 37:10,11 download 21:11 drawer 88:7 drills 80:4,13 87:5 Drive 1:14 drives 45:7 drop 28:20 29:9 dry 8:2,4,10,14 8:17,20 9:1,2,5 11:11	due 8:10 92:10 duly 7:2 93:7 <hr/> E e-mails 86:7 earlier 88:22 early 23:15 EASTERN 1:2 easy 66:19 ECR 24:21 EDA 48:1 EDELMAN 2:3 effect 72:11 either 21:20 31:23 61:16 68:23 69:1,3,5 69:7,9,11 electric 20:5,6 38:7 57:18 72:13 electrical 12:18 12:20,25 13:4 13:6,14 14:23 31:10,15,21,23 38:2 40:23,24 42:8 51:4,8,19 52:2,10,11 62:7,10 63:17 63:25 64:21 65:5,6,12,16 65:23 72:20 78:24 79:4 88:8 electricity 42:9 65:12 73:16 electronic 21:11 21:21 22:5 38:6 ELSER 2:2 emergency 18:22,24,25 19:2,4,5,10,14 19:20,24 26:1 26:7 38:12,18 38:25 40:22
--	---	--	--	---

41:14,17 42:3 42:13,16 43:5 43:14,19,21 53:21 55:23 57:7 60:23 61:2,3,7,11,13 61:15,17,22,24 61:25 62:20 63:1,5,9 64:3 64:18,19,20,21 64:25 65:2 66:3,16,17 67:10,12 68:8 68:10 70:4 72:21 73:7 74:4,7,8,21,22 75:1,3,4,5 77:20 78:23 79:9,11 80:2,3 80:5,12,16,17 80:25 81:14,20 81:23 83:4,7 84:16,18,25 85:3 87:18 88:23,23 89:3 EMG 61:3 employer 9:12 9:14 employment 93:17 empty 29:15 energized 72:18 72:19 engine 17:17,19 21:7,8,10 22:15,21,22,25 23:5,7,9 24:9 24:11,12,22 25:7,11,15 26:7,10,22 30:21 32:14,18 33:23,23 34:2 34:3,20,21,24 36:5 37:4,8,9 39:23 41:24	46:13,16 49:7 49:11 50:20 59:1 60:2,6 63:6,14,15,21 63:22,22,23 65:6,11,19 75:18 80:15 81:1 83:20 87:17 engineer 7:20 8:23 11:1 24:13,16,18 31:7 45:3 48:14 49:20 53:4 78:9 79:5 engineer's 85:24 engineers 86:16 engines 1:8 22:21 entail 61:8 enter 86:8 entering 81:9,24 82:20 entitled 4:17 entity 93:14 equipment 1:9 12:12 25:1,2 50:18,19 56:10 56:25 equipped 16:10 56:3 Esq 1:19,20 2:3 established 56:15 event 19:25 events 23:2,3 Everyday 32:5 evidence 6:16 exact 73:16 exactly 17:15 18:12 36:13 43:9 54:3 57:20 67:8 70:11 77:13,15 Examination	3:1,4,5,6 7:5 87:25 89:24 examined 45:9 example 15:8 32:12 46:17 65:3 70:19,25 72:18 exceed 56:20 exclude 78:24 excluded 79:8,9 excuse 36:6 83:13 exerted 72:9 Exhibit 4:1,4,6,8 4:11,14,16,20 4:22 5:1,4,8,11 5:13,15,17 7:7 7:9 9:20 23:23 24:3,15 26:17 44:2,9 50:4,14 54:8 55:11,21 56:15 71:12,19 71:21 72:5 82:16 83:1 exists 57:22 expect 59:9,12 expenses 48:4 explain 35:23 41:15,16 42:5 49:5,6 51:24 64:16,17 explained 43:3,4 47:8 53:19 explanation 66:15	67:17 89:6 fair 22:18 26:16 47:12 49:23 50:24 far 40:19,21 47:1 fault 59:18 faulty 88:3 Federal 6:7 92:5 feedback 14:18 14:19,20 15:11 15:12,14,20 45:14,17 47:2 feeds 15:6 feel 35:8 70:16 70:17 78:13,17 78:19 felt 33:24,25 36:3 51:1 59:22 60:23 75:10 figure 27:20 44:17 55:17 filing 6:10 financial 93:13 find 11:19 22:1 81:3 fine 11:15 13:23 48:6,7 90:17 finish 84:20,22 fire 37:10,11 firm 93:18 first 7:2 10:7,15 14:9 23:12 25:9 26:25 35:13 41:16 50:22 54:10 55:10,25 58:4 58:17 59:6 73:20 82:13 90:10,18 firstly 73:21 five 8:18,19 43:17 58:22,23 82:22	flash 32:14 Fleet 4:23 Flotte 1:19 3:4,6 7:6 12:24 13:22 19:3 21:4 41:7,10 48:21 54:25 55:7,19 66:6,9 69:4,8 75:24 76:2 79:14,17 82:11,15 86:25 87:3,22 89:25 91:3 flow 70:22 fluid 18:3 32:12 49:13 51:22 follow 46:7 follow-up 15:21 15:23 16:3,7 17:14 46:7 47:4 76:4,12 76:22 77:1,4 following 23:24 66:19 82:21 follows 7:4 force 72:9 foregoing 93:8 form 4:12 6:13 formalities 6:9 format 93:12 forth 56:3 77:7 93:8 found 45:6,17 45:20 46:24 47:2,4,6,21 79:5,6 88:2 four 7:24 8:20 9:6 11:7,8,11 12:1 18:13 31:17,18 80:23 86:18 fourth 29:4,6 frequently 8:16 Frey 1:20 front 69:18
--	--	--	---	---

71:11 FU 46:7 fuel 34:6 full 7:12 75:10 function 15:20 68:17 functions 47:19 47:22 furniture 1:9 further 51:5 79:4,4	globo 83:1 go 11:16 12:25 13:23 14:25 15:17 17:3 21:11 23:13,22 24:1,5 27:11 28:6 29:2 30:8 30:10 33:17 35:11,20 37:13 37:23 38:16 41:5,11 44:19 46:25 49:23 51:22 54:11 55:14,17,20 58:2 66:7 70:23 72:24 74:8 75:25 76:3 79:4,15 79:18 85:22 87:1,4,10,17 goes 16:2,17,22 20:4 37:12 43:1,1 59:8,11 67:14 going 8:17 14:10 14:24 15:16 23:12,21 24:1 30:5,6,7,9 34:22 37:24 38:3,4 39:19 43:25 44:8,19 50:1 54:7 55:2 55:8,9 56:13 59:7 66:13 67:4,16 68:21 71:12,17 75:15 75:22 78:9,12 good 7:19 8:22 9:23 11:23 17:20 39:2 40:20,22 47:23 68:25 gotten 41:2 greasing 31:24 great 33:12 55:1	Greenwich 27:1 grounded 34:5 group 50:4 Guard 4:12,18 5:18 34:13 47:24 82:17 guess 11:16 24:25 30:12,18 guidelines 93:12 guys 34:13 <hr/> H <hr/> half 9:2,3 73:6 hand 42:17 50:1 66:25 72:22 handling 66:20 handwriting 24:3,3 happen 61:20 62:23 63:8 happened 21:12 21:19 23:15 33:19,24 43:15 44:17 76:16 86:21 89:13 happening 34:23 76:18 happens 83:20 hard 17:7,9,10 34:18 35:10 45:8 72:25 73:2 81:15,15 81:16 84:16 Harowski 2:3 3:5 13:16 19:1 21:2 41:4 48:18 54:22 69:2,6 88:1 89:22 headset 71:9 73:22,23,24 74:2 84:2 heard 33:24 34:17 53:17,18 heavy 12:17	held 11:4 29:1 helm 14:1,3,15 36:1 46:6 47:3 76:10 77:23 83:18,18 helmsman 16:2 help 55:6 67:4 hereinbefore 93:8 hereto 6:4 highlight 50:16 highlighted 50:7 highlights 50:2 hit 34:1,1 49:10 HITE 1:19 hits 17:5 hold 10:25 65:5 holding 11:1 71:1,5 holds 30:8 hole 34:5,15 41:20 51:1 73:19 Holland 45:1 hours 23:15 82:19,20 Houston 45:1 hull 34:6 35:3 hydraulic 12:12 12:13 18:3 31:3,6,21,24 32:12 37:19,22 38:6,6 40:23 41:20 42:21,25 49:2,13 51:22 52:3 62:5,11 68:2,3 69:20 69:23,24 70:22 78:24 79:8 hydraulically 38:2 hydraulically-... 79:3 <hr/> I <hr/>	idea 17:20 79:19 identified 52:13 identify 24:15 26:24 27:6 44:4 54:13 ignore 50:2 Imagine 72:15 immediate 49:14 58:13 Immediately 41:25 IMO 4:7 7:9 29:12 important 11:20 34:7 impression 59:6 inches 70:9 incident 23:24 included 80:10 81:1 includes 61:21 64:8,9 90:19 independent 18:6 40:5 61:14 INDEX 3:1 4:1 indicate 92:13 92:16 indicated 71:6 indicating 42:18 69:21 70:13 72:3 indication 71:4 indicator 22:14 22:19 37:3 71:10 83:24 84:4 indirect 59:21 93:17 indirectly 51:23 51:25 52:5,6 information 21:21 22:8 informed 93:13 initially 45:20
---	--	--	--	---

ink 72:4	54:24 56:3,20	73:25 75:15,21	lists 29:12	65:16,17,19,22
inside 41:20	57:1 82:18	75:21 78:22	litigant 93:18,19	66:1,2 89:4
42:20 52:3	JAMAL 54:9	79:25 86:2,9	little 13:24 18:2	losing 33:5
70:16,21	January 5:10	88:8	23:13 24:1	63:16,23,24
insofar 11:10	jobs 31:24 32:1	knowledge	33:1,10 48:11	loss 25:25 26:3,4
50:23 56:19	joined 9:5 11:25	53:11 59:6	64:12 66:12,15	53:20 56:23
77:16 80:1	joy 16:14 70:15	93:17	67:4,5,24	57:8,11,13,15
87:5	JUDGE 1:7,8	Kreihls 1:13	LLC 1:19	57:16,17,19
Inspecting 5:2	July 1:14 32:19		Lloyd's 5:5 9:24	59:17 63:2,6
50:15	48:1,3,5 82:23	<hr/> L <hr/>	48:16,19,23,24	63:13,13,15,16
inspection 8:11	83:10	L 6:1	55:13	63:21 64:22
49:25	jump 23:22	lacks 63:19	LLP 2:3	65:13,14 76:20
installed 79:22	jumped 47:1	law 6:8	loading 30:11	88:25 89:6,8,9
79:23 88:9,16	jumps 66:3	leading 60:17	local 27:1,3,4	89:10,13
91:1		86:20 87:6	28:3 39:1	lost 89:5
instance 58:24	<hr/> K <hr/>	leakage 33:14	41:21 67:5,16	Lotina 5:2
instruction 61:5	keep 16:18	leaks 31:3,6	67:23 70:5	Louisiana 1:2
instructions	67:25 68:2,3	leave 28:10	72:21	1:14,21 2:4
4:24 87:9	85:24	led 51:1	locally 61:6	6:19 92:4,7
interaction	kept 27:1 50:6	left 92:17	81:17	93:6,15
92:10	83:3	let's 14:8 15:13	located 76:9,10	low 32:13,15
intercom 25:13	Kevin 1:20	17:2 18:18	88:3,4	35:3
interested 93:20	kilowatts 11:3	24:5 28:6	lock 20:25 21:5	<hr/> M <hr/>
investigate	56:21	30:19 32:7	log 20:24 21:3,5	M 1:19
33:19	kind 23:3 30:3	35:11 37:15	22:14,19 85:24	M.A.N 22:23,23
investigation	30:18 34:18	38:16 39:4,17	logbook 86:8,13	M.A.N.-B&W
33:22 38:8	55:3 70:14	41:11 43:22	logger 26:20,21	23:1
invoice 44:25	kinds 30:2	44:12 48:2	26:25	M/V 1:8 2:6
involve 76:6,8	knew 58:24	55:17 58:22	long 7:22 10:4	machinery 84:6
involved 51:8	1:12 7:14	65:3 66:7 71:1	11:4 49:1 58:1	Mackay 45:2
involves 77:14	knock 23:3	73:15 74:6,12	58:19 70:10	MAGISTRATE
involving 76:23	know 8:16 11:21	75:25 76:3	73:1 74:5,9	1:8
76:24	15:7 21:17,20	78:16 79:15,18	87:16 90:15	main 22:21,22
issue 8:11 23:11	22:8,11,13,16	80:1 82:4 86:2	look 21:12 27:12	22:25 23:5,7,9
25:10 33:7	22:17 23:13,19	87:4	44:12 55:15	25:7,11 26:7
78:22 79:8	27:2,17,18,19	level 18:18 31:25	75:2 82:4,7	26:22 34:2
85:14 86:1,21	29:4 30:5,14	32:15	looked 48:10	57:11 63:6,14
<hr/> J <hr/>	33:5 34:4,9,15	License 93:24	looking 37:3	63:15,21,22,22
JALMA 1:8 2:6	37:18 38:2	line 33:8 65:5	47:9 67:15	63:23 64:2
4:7,9,13,15,18	42:18 45:3	linkage 31:25	looks 37:13	65:6,11,19,24
4:21,25 5:3,7	46:10 49:20	linkages 12:17	44:24 47:25	66:1,2 89:4
5:16 7:20,23	53:14 54:2	Lipanovic 24:19	52:13 66:20	maintenance
9:8,9 11:10,25	56:4,9,12,12	list 4:7 7:9 29:12	82:18	32:2 51:6,8
26:17 29:15	56:24 60:9	82:22	lose 19:5,14	89:14,17,19
	62:12 65:4	listed 9:20	63:23 64:2	

major 33:14	50:19 64:18	Monte 10:20,23	needed 74:11	41:9 55:18
maker 86:16	65:12 72:20	months 7:24	75:3 87:11	66:8 76:1
making 33:3	74:24 83:18	8:20 9:6 11:11	needs 65:11	79:16 82:14
93:14	84:19	12:1 18:13	negatively 89:1	87:2
managed 41:22	mechanical	31:17,18 50:9	Neither 62:19	officer 76:11,12
Management	30:22 31:22	80:23 86:19	never 85:22	87:16 92:5
4:23 9:15,20	86:20	MOORING 1:5	new 1:14,21 2:4	93:6
10:2,5,18	mechanics 37:16	MORGAN 1:7	45:2 88:14,14	officers 81:5,6
maneuvering	meeting 47:23	morning 18:19	89:21 90:10,11	offices 1:13
18:20 63:1	mentioned	23:15 60:8	90:25	officiated 6:20
manhole 36:17	38:24 49:24	68:11	NFU 45:14,21	offshore 10:8,16
36:19,20	MERCER 1:19	MOSKOWITZ	45:23	oil 31:25 32:15
manner 77:12	method 5:12	2:2	night 34:19	32:24 33:5,6,9
manual 25:6,11	92:14 93:9	motor 62:1,8	nods 89:1	33:12 42:21,25
34:1 46:7,8,11	methods 66:19	motors 13:4,6	noises 84:5	70:22
47:4 60:18,20	Michael 2:3	20:5,6 62:10	non-follow-up	oiler 24:12,16,19
60:25 66:12	middle 9:4 16:22	move 43:7 68:22	16:11,13,25	oils 52:5
67:6 75:20	midnight 24:7,8	68:25 70:21	17:1,14,21	okay 10:10,14
77:25	25:17	78:4 83:25	45:15,25 46:1	10:18 11:17,18
manually 41:19	millimeters	moved 15:1	76:4,13,18,22	11:21,22 12:15
42:20 43:7	54:19,20 56:16	movement 81:14	77:1,5	12:19 13:21
Marfin 4:23	mind 55:2 71:14	moving 16:5	normal 20:17	14:8 15:19
9:15,20 10:2,5	minute 55:14	Mrgudic 1:12	26:5 32:2,4,5	16:1,16 17:5
10:8,18	68:22 73:5	4:5 7:1,14 93:7	47:20,22 52:24	17:23 19:4,8
Marine 1:13	82:10	multimeter 47:6	normally 57:2	20:23 21:17,24
mark 7:7,8 9:19	minutes 74:12	52:12	78:19 85:7	22:1,2,20 24:8
27:13,24 28:2	74:13	multiple 66:11	note 44:23	25:16 26:6
50:4,14 55:2	Mississippi 1:13	<hr/> N <hr/>	notice 4:5 6:8	27:19 28:1,5
71:12 82:16	29:17 30:25	N 6:1	7:8 26:13	29:1,11 32:7
marked 23:23	31:12 39:6	name 7:12	notification 25:9	33:6,17,20,25
26:17 44:1	misstated 64:10	names 92:19	NTSB 47:24	34:8 35:11
54:8 55:10,21	Mitsui 22:23,25	narrow 43:13,13	number 24:17	36:14 39:4
71:20 81:21	mode 17:1 26:22	narrowed 79:7	50:1 52:18,18	40:24 44:22
82:5,25	42:14,14,14,16	navigate 43:11	54:1,5,5 66:23	45:13 46:12
master 74:6	45:15 46:7	navigation 5:2	numbers 24:16	50:14,23 51:11
76:11 87:9	47:4	18:17,17 20:18	<hr/> O <hr/>	54:16 57:6,10
material 92:20	modes 47:21	80:8	O 6:1	58:1,14,19,23
matter 93:18,19	83:7	near 9:21	oath 6:20	59:8 60:11
93:20	moments 60:17	necessary 49:12	objections 6:12	64:1,23 68:19
mean 10:11 27:1	Monaco 10:20	92:12	observations	68:21 69:22
36:5 43:6,12	10:21	need 27:12	23:14	80:13 84:7
46:10 83:17	Monday 1:14	43:18 48:8	obtained 88:19	87:23 88:13
89:17	23:16	49:9 66:4 67:4	occurred 57:13	omitted 41:12
means 27:17	monitoring 21:8	89:2	Off-the-record	onboard 34:14
36:6 41:15,19	21:10			once 16:5 43:21

open 18:4 36:17 36:20 51:21 Opened 45:13 opening 36:18 operate 17:13 operated 37:24 66:18 67:23 operation 20:18 32:4,5 45:7 47:15,22 67:6 67:21 68:20 operations 66:12 operator 9:21 operators 9:22 opinion 40:19 40:21 73:4 opinions 93:16 optional 90:24 90:24 order 4:21 25:18 26:6 27:14 30:21 32:10,18 33:23 34:1 42:23 44:9,13 61:1 63:19 72:24 73:8 75:10 87:11 88:14 90:24 ordered 23:9 25:6,10 71:2 74:20 80:21 ordering 90:25 orders 36:12 43:16 61:1 74:1,1 84:14 [REDACTED] 1:12 7:15 original 93:3,4 originally 15:6 88:18 Orleans 1:14,21 2:4 45:2 outcome 93:20 outside 34:23 44:15	P P 6:1 page 3:3 4:3 54:10 92:1 93:4 pages 5:12 44:3 81:21 93:9 panels 61:4 paper 21:15,20 22:5 pardon 64:16 part 6:15 13:11 13:12,13 21:6 25:4 28:11 33:17 34:10,12 41:24 50:21 66:11 67:4 69:20,23,25,25 70:21 78:24 80:17,21 83:19 83:21 84:6 88:11,20 90:7 90:24 Part5 5:5 particularly 55:22 particulars 4:9 9:17 22:24 parties 6:4 93:20 parts 11:13 12:3 12:5,17,18,20 12:21 13:1 50:7 67:16 88:8 party 93:18,19 Pass 28:19,21 85:21 Patterson 1:14 pauses 92:13 peak 28:1 pen 27:13 people 34:14 76:6 perform 61:5,25	62:13 73:7 75:5 84:16 89:16 performed 24:10 61:7 performing 80:12,16,19 period 25:16 32:17 49:13 periodic 49:24 50:6 53:15,16 persist 40:12 person 24:21 93:14 personal 93:10 personally 23:14 78:6,8 personnel 80:10 81:1 87:15,17 pertains 22:10 PHILLIPS 1:9 phone 25:14 phonetically 92:22 photo 71:18 Photograph 5:14 phrase 92:21 phrases 92:17 physically 88:3 picture 71:22 piece 88:18 Pileggi 44:25 pink 50:2,16 piston 42:21 52:3,4,4,5 70:22 pistons 42:21 51:22 place 71:8 85:17 PLAINTIFF 1:22 plan 23:22 plans 8:16 play 64:7	please 7:13 56:6 plungers 41:20 point 17:8 71:17 71:21 port 29:12 35:20 36:2 37:14,23 38:3 43:17 45:8,18 47:3,7 69:24 70:1 81:15 84:15,15 position 8:23 16:20,23 26:14 30:11 43:19,22 52:24 74:2 87:12 91:2 possible 4:17 73:4,5 power 18:22,24 19:2,5,6,14,16 19:18,25 20:21 23:5 26:1,2,3,4 42:9 51:19 52:2,2 53:20 53:21 55:23 57:8,8,11,12 57:13,15,16,17 57:19 59:17 63:2,3,5,7,9,13 63:16,17,21,24 63:25 64:4,18 64:19,20,21,24 65:6,13,16,20 65:23 66:3 72:13,20 85:19 88:23,25 89:5 89:7,8,10,10 89:13 powered 62:7 Poydras 2:4 practice 18:14 75:1,2 prepared 23:20 23:24 81:19 93:9,12 present 8:22,25	12:1 Presentation 4:17 preserved 21:5 21:22 22:9 pressure 62:5,12 pretty 35:3 previously 7:9 primarily 18:15 primary 82:1,2 82:8 83:6,8 Principal 4:9 print 13:9 printed 21:13 46:22 printing 21:13 21:14,15 prior 81:8,24 82:20 87:5 probably 8:15 85:18,18,21 problem 13:21 22:18 28:2 30:17,24 40:12 40:13,17,19,23 79:3 85:13,16 86:4,10,11 problems 30:22 31:10,15 84:5 procedure 6:7 67:25 92:6,7 93:16 proceed 26:5 74:3 84:22 proceeding 92:11,15 produced 7:10 44:3 54:12 55:9 prohibited 93:17 prohibition 93:15 proper 92:14 properly 38:12
---	---	---	--	---

38:17 39:14 41:14 42:3 43:5 propulsion 11:2 56:19,20 63:24 63:24 65:14,17 65:19 provide 16:4 19:25 provides 64:4 66:3 pull 47:10 pulled 55:16 pumps 12:10,11 13:5,6 17:24 18:15,18 20:4 20:16 35:15 47:21 58:2 61:15,16,18,18 77:8,9 purposes 6:6 pursuant 6:8 push 42:24 58:6 58:8 62:11 68:23 69:1,3,7 69:9,11 70:6,8 70:9,14,20 72:10 73:2,19 77:16,18 78:4 79:11 80:16,20 85:1,4 87:13 90:7 pushed 73:1 pushing 42:17 42:19,20 43:8 43:18,20 66:14 68:23 69:1 70:12,25 72:19 78:20 put 15:7,7 16:1 16:20 17:2,4 50:3 73:10,11 73:13,21 74:2 76:18 79:19	Q quantity 33:4 question 6:13 11:21 30:19 44:5,10 54:13 55:13,25 56:9 90:16 questions 56:14 89:23 R R.S 93:8 Radio 44:25 rams 18:5 37:19 37:22 reach 71:5 reached 75:20 reacts 77:10 read 25:3 35:15 47:1 54:10 55:4 56:24 reading 6:9 68:25 71:13 ready 58:12 real 12:25 64:17 74:22 really 54:10 80:4 86:3 reason 78:21 recall 11:11 32:8 44:14,15 51:12 receive 42:25 59:9,12,23,25 60:11 73:25 74:1 77:24 received 25:6,17 26:6 30:21 32:10,21 33:22 59:5 72:24 75:10,16 80:2 receives 46:23 receiving 42:15 42:23 90:18 recollection 31:20 81:18	86:22 record 7:7,13 22:4,12 27:12 32:25 33:11 41:5,11 54:23 55:15,17,20 66:7 75:25 79:15,18 87:1 87:4 92:9 recorded 85:17 85:19 86:5,21 recorder 21:6 22:6,9,14 records 20:19 33:3 50:6 81:3 83:3 recover 85:22 rectified 86:12 refer 50:7 reference 45:2,3 71:16,21 92:20 refers 67:10 regardless 49:11 56:7 Register 5:5 55:13 regular 8:12,13 8:14 regularly 51:3 Regulations 5:9 5:18 55:12 82:17 related 40:23 50:9 93:19 relationship 88:24 93:17,19 relationships 93:15 relative 11:12 relay 47:7 51:13 51:16,25 57:13 57:17 58:25 59:8,11,18 63:19 76:19 79:19 86:4	88:2 89:6,9,11 89:15,18 90:23 90:23 relays 47:5,9,12 47:13 52:18 53:5,16 88:15 88:21 89:17 90:9,19,22 release 51:19 52:5 70:22 rem 1:9 remember 8:1 30:10 remote 15:25 35:17,18 36:5 38:12,15,17 42:11,14,14,14 66:22 68:18,20 remotely 37:25 38:22,25,25 67:1 68:13 81:17 83:6,16 84:1,3 Remove 47:5 Repair 1:13 repaired 57:4 repeat 13:24 18:23 56:6 64:15 repeating 13:17 replace 47:12 89:21 replaced 40:8 53:10,11 replacement 53:15,16 report 41:3 85:20 reported 2:9 93:9 reporter 2:11 6:19 7:3,17 12:22 63:5 64:14 92:4 93:6,24	Reporter's 92:1 92:15 93:1 reporting 93:9 93:18 required 93:4,12 reserved 6:14 reservoir 33:10 reservoirs 32:13 32:25 RESOR 1:19 respect 55:22 respond 36:11 responded 23:7 23:9 85:7 response 75:1 responsive 37:3 responsiveness 6:13 restart 66:4 rested 24:8 result 40:11 right 16:17,23 20:16 23:2 24:20 25:23 28:5 33:15 34:11,20 37:25 38:16 45:20 46:24 48:22 50:11 51:11 52:23 53:2,14 56:13,15 59:19 64:16 65:21 67:14 70:3 71:23 72:23 75:13 77:19 78:1,3,15 river 1:13 29:17 31:1,12,14 39:6 40:1 rod 43:8 66:14 68:23 69:1,3,7 69:9,11 70:8,9 72:10,19 73:2 73:19 77:16,18 78:4 79:2,12
--	---	--	--	---

80:16 85:1 87:13 rods 80:20 85:4 room 17:17,19 21:8,10 24:9 24:11,12,22 25:15 26:11 32:14 34:3,20 34:21,25 35:4 36:6 37:4,5,6,7 37:7,8,9 39:23 41:24 46:13,16 46:20 49:7,11 50:20 59:1 60:2,6 67:6,24 74:15,16,17 75:18 80:15 81:1 83:20 87:17 rotary 37:16 round 24:10 routine 32:1 rudder 5:7 12:7 12:9,16 15:12 15:14 16:2,4 16:17 18:5 22:14,19 26:13 36:2,12,15,17 36:20,22,23,25 37:1,3,13,23 38:3 43:1,7,18 43:20 45:7 46:25 47:5 48:10 54:14 56:8,16 57:9 59:13 68:23 69:1 70:23 71:2,4,5,6,10 74:3 78:5 81:15 83:24 84:4 Rule 92:5 rules 5:9,18 6:7 55:11 82:17 92:6 93:12,16	run 39:18 58:15 62:1,10 73:6 74:15,16 running 18:7 19:9,24 25:19 25:25 42:16 53:22 58:3 61:20 63:7,8 64:8 65:7,8,10 68:2,3,6 runs 65:11 <hr/> S S 6:1 S.A.M 4:23 sail 29:15 56:25 57:1 Sailing 28:19 sails 9:23 SALLEY 1:19 SALVAGE 1:4 1:22 save 6:12 saying 26:21 51:7 59:3,13 62:17 65:25 66:21 74:7 85:12 89:18 says 22:24 24:6 24:20 28:7 35:13 38:11,17 40:7 41:13 44:23,24 45:6 46:24 47:2 48:1,3 66:18 66:21 67:17,25 68:22 82:16,19 83:8 sea 28:17,18 43:15 seal 33:7 93:4 sealing 6:10 second 41:6 67:17 70:7 secondary 82:1	82:2,8 83:8 seconds 58:20 58:21,23 71:1 74:14 section 55:14,22 55:24 56:4,10 see 9:16,22 17:22 19:20 21:12 23:22 33:6,9 34:17 34:18,24 36:18 36:20,25 48:2 66:5 73:24 78:9 81:22 82:4,12 83:24 seeing 32:8 seen 44:5,6,10 44:12 select 17:13 send 15:1,9 36:14 sending 89:7 sent 77:12 sentence 41:13 separate 22:5 37:7 separated 37:10 server 88:4,5,6 90:23,25 service 45:3 48:14 53:4 63:10 79:5 86:15 services 93:14 Servo 13:9,10,13 set 56:3 57:11 93:8 Setaliste 1:12 7:14 sets 37:10 shaft 12:16 Sheet 5:6 ship 5:16 7:25 8:16,20 9:5,7 9:23 11:25	18:14 20:17 25:19 27:15 28:11,13 29:15 29:25 30:22,25 31:11 35:3 48:6 53:25 54:12 55:24 56:11,24,25 80:24 86:19 ship's 89:15 Shipping 5:5 ships 5:10 10:1,4 29:1 55:12 short 27:18 75:14 86:13 shorted 52:22,23 53:12 89:19 shorter 56:14 shorts 65:6 show 9:19 23:21 26:16 44:1,8 52:22,23 54:7 55:8,10 67:16 68:22 69:10 71:20 72:5 81:4,20 showing 35:20 50:6 55:21 shown 61:4 shut 40:3,4 73:6 73:9 74:19 84:9 shutting 73:14 73:15,16 sic 8:9 54:9 side 17:3 35:21 37:14 38:3,4 39:1 41:21 42:24 51:8,10 51:11 70:1,2 70:20,23 71:3 81:16 sign 9:11 signal 14:22,23 15:1 16:4	45:14,17,23 47:2 76:17 77:12 89:7 signals 40:24 42:15 46:4,4 46:23 signature 93:3 signing 6:10 similar 17:16 simply 62:20 63:18 77:11 single 12:7,9 26:10,12 sir 38:21 situation 45:19 62:13 skipped 41:12 slow 64:17 slower 13:24 slowly 12:25 small 33:4 35:9 35:9 42:19 44:14 88:7 smooth 45:17 47:2 snapshot 71:14 Society 9:24 55:12 solenoid 5:14 12:14 13:7,8 35:14 40:8,13 40:15,18 51:20 52:4 67:7 68:24,24 69:11 69:12,13 71:10 71:18,22,24 72:6,8 solid 89:17 somebody 27:20 44:16 65:4 80:14 sorry 11:14 20:12 22:22 36:6 54:16 56:9 59:10
--	--	---	--	--

68:24 90:15 sort 82:25 sought 6:16 sounding 34:6 source 18:22,24 19:2 57:8 68:5 Southwest 28:19 28:21 85:21 soybean 30:3 spaces 43:13 spare 47:13 spares 47:13 90:20,23 specifically 6:11 25:3,5 81:22 speed 26:22 spell 8:8 9:16 spelled 92:21 spontaneous 92:11 spot 80:6,7,8 spring 70:16,18 72:10 78:14,16 staff 24:11,12 stage 38:8 stamp 82:18 stand 12:21 14:1 14:2 15:10 76:9 83:13 Standing 4:23 starboard 14:25 15:8,9,10 16:2 16:5,18,19 17:3,3 36:12 37:24 38:4 42:24,24 43:1 43:2,7,17 45:18 47:3 70:1,20,23 71:2,3 72:18 72:25 73:3 74:9 78:5 81:15 84:15 start 16:18 49:2 49:6,8,10 58:6	58:8,10,17 started 24:6 58:12 starting 64:4 starts 49:12 state 6:19 7:12 59:2 89:18 92:4,9 93:6 stated 63:12 70:5 statement 4:12 23:20,23 28:6 33:18 35:12 37:12 59:21 60:13 states 1:1 4:18 85:11 statute 93:12 stay 43:22 83:19 steel 42:18 steer 14:12 39:19 stenotype 93:9 steps 15:17 stern 36:16 stick 16:14 70:15 71:15 73:19 Stipe 1:12 4:5 7:1,14 93:7 stipulated 6:3 stock 5:7 36:16 36:21 54:14 56:8,16 stop 16:4 25:6 25:11 26:7 27:6,7,8,13,14 27:14,25 30:21 32:10,18 33:23 34:2 60:18,20 60:25 74:7,7 74:17 75:10,20 77:25 stopped 26:9 27:15,16 33:23	stopping 17:6,8 straight 28:24 Street 1:20 2:4 strike 57:1 77:18 strong 78:15 stuck 36:1,2 stuff 36:25 substituting 72:11 successfully 37:23 Suite 1:20 summarize 86:18 Sunday 18:19 supervision 93:10 supplies 53:21 64:24 supply 19:6,16 19:18 supposed 69:12 69:15,16 sure 13:19 15:17 27:22 63:4 64:13 67:15 76:21 79:2 86:3 87:11 Surveyors 48:24 suspect 39:4 suspicion 35:13 switch 57:23 58:2,4 59:23 60:6 76:4 77:7 90:1,2 switchboard 18:25 63:2 65:1,2 switches 19:11 19:15 switching 68:5 76:12 sworn 7:2 92:8 93:7 system 11:24	12:4 16:10 18:4,6,9,10 20:20 21:9,10 31:4,20 32:9 37:17,20 38:1 39:11 40:6 47:15,16,19 48:6,9 50:8,17 50:25 52:6 54:1,2,4 57:2 57:22 59:15 61:14,21 62:19 62:22 63:9 64:8,9 66:4 67:18 68:17 76:23,24 83:16 83:24 systems 11:12	81:22 tank 12:14 32:16 tanks 33:13 teach 87:16 telephone 60:2 tell 11:20 16:4 26:19 30:19 33:24 38:13 55:23 56:2,5 68:22 83:9 telling 83:23 ten 7:24 31:18 71:1 tension 78:13,17 term 27:18 terminal 46:8,8 46:11 47:4 terms 86:13 territorial 82:20 test 35:23 45:21 45:22,23,25 46:4,18 47:10 47:21 50:18 52:14,15,19 83:7 85:12 tested 35:14,25 38:13,22 39:15 45:14 47:15 48:12 53:3,6,7 53:8,9 testify 7:3 93:8 testimony 60:14 92:8 93:6,9 testing 5:3 36:4 46:4 50:7,15 74:24 81:20,25 83:4,4,23 84:16,18,25 tests 49:25 50:9 50:21,23 82:1 82:8,21 85:13 Thank 24:20 38:10 55:1 87:23
--	---	--	---	--

thereof 6:15	86:9 87:8	87:14	52:18 54:1	61:10,14,16,17
thing 71:15	90:11,18	transcribed	58:21 61:18	61:18 74:21
72:22	times 10:6 18:20	93:10	72:4,7 74:12	78:4 87:12
things 11:19	29:10,11	transcript 92:18	74:13 88:15	usually 8:18
13:18 14:10	today 21:19 44:5	93:3,11,11,12	90:19,22	35:2
82:5,22	44:7,10 60:14	transcription	two-page 54:8	utilize 60:23
think 9:18 25:23	toggle 16:14,15	92:15	55:5	
28:4 30:15,16	16:16,16,21	transfer 84:9	type 14:21 16:7	<hr/> V <hr/>
32:19 39:8	17:2,4 46:2,3	transferring	typically 32:25	valid 93:3
41:2 45:15	70:15 90:6,7	18:20 71:3		valve 5:14 35:14
47:1 49:17	top 48:1	transmit 14:21	<hr/> U <hr/>	40:8 52:4 67:7
50:11 54:9,11	TOPIC 1:8 2:6	15:5,9	U 6:1	68:24 69:12,13
56:1 59:20	7:20,23 9:8,9	transmits 15:3	U.S 4:12 5:18	71:10,18,22,24
62:17 66:21	11:10,25 26:18	transmitter 14:5	47:24 81:9,25	72:6,8
67:10,24 74:5	29:15 54:9,24	14:5,6,9,11,15	82:17,20	valves 12:14
74:9 81:5 87:7	56:3,20 57:1	14:17 16:3	Uh-huh 15:24	13:7,8 18:4
87:24 90:9	82:18	traveling 48:3	understand 12:6	51:20,21
thinking 27:22	TOPIC000001	tried 50:15 79:1	23:11 43:6	vane 37:16
third 24:12,18	4:10	triggered 63:20	44:21 57:10	various 5:12
thought 50:16	TOPIC000002	true 16:17 51:3	58:1 62:2	Veracruz 29:13
55:5 92:13	4:7	64:10 77:8	71:17 76:22	29:16 30:20,25
thousand 11:2	TOPIC000009	93:10	91:4	31:11 32:9,18
three 8:18,19	4:13	trunk 36:18,22	understanding	verified 92:20
11:2 50:9	TOPIC000012...	36:23	17:11 25:8	VERSUS 1:7
58:21 70:9	4:15	try 33:18 44:20	37:15 51:15	vessel 21:6 22:5
tied 19:21	TOPIC000014...	55:16 75:2	83:2 88:17	22:9,14 47:13
tiller 5:6 12:16	4:21	trying 22:1,2	93:11	63:17 64:22
54:14 56:17	TOPIC000016...	44:16 64:13,15	understands	90:12
time 6:15 10:15	4:19	67:15	13:19	view 71:7
11:20,25 18:1	TOPIC000018	Turkey 8:2,4	understood 20:3	visibility 34:23
18:7,8,11	5:3	turn 17:1 39:20	25:24 37:12	visible 86:6
24:17 25:2,16	TOPIC000019...	53:21 58:14,18	38:5,10 46:6	visualize 36:15
25:17 26:14,23	4:25	87:10,13 89:3	48:22 49:1	voltage 20:3
26:24 27:1,1,2	TOPIC000032	90:4	53:5 70:24	59:16
27:3,4,11,15	5:16	turned 39:22	75:19,23	volts 20:7,8,10
28:3,21,22	TOPIC000038...	turning 16:18	undertaken 9:1	20:15,16
30:4,20 32:9	5:7	16:19	unit 86:11	voyage 29:5,6,20
32:17,18 38:1	touching 14:12	turns 16:23 86:3	United 1:1 4:18	voyages 29:8
38:9 39:9	TOWING 1:4	Tuza 8:10	units 84:17,19	
47:20,23 49:9	1:22	Tuzla 8:2,3,5,6	upside 68:25	<hr/> W <hr/>
49:13 58:16	town 8:2	two 10:6 12:10	upstream 85:23	wait 85:22
61:19 64:17	trained 75:4	12:11 13:4,6	use 17:21 18:8	waived 6:11
68:8 72:23	training 74:23	17:23,25 18:15	18:10,15 39:6	wake 29:22
75:7,7,9,9,12	74:25 80:2,3,5	24:10 37:10,10	39:9 40:1	walk 44:20
79:1,2 81:9	80:9,25 87:5	42:13 44:3	49:14 58:13	want 17:13

27:13 30:12,17 42:22 44:20 49:23 55:15 58:4 61:10,25 71:16 74:2,3 76:21 78:22 warning 32:13 warnings 32:8 32:21,23 wasn't 52:21 58:23 watch 24:6,9,17 76:12 87:16 watching 71:4 water 29:22 72:17 waterline 35:1,5 35:6 waters 81:9,25 82:20 way 23:3 26:5 39:11 43:21 54:14 56:17 57:10 59:16,21 71:17 76:14 80:4 ways 11:19 81:17 we'll 33:17 71:17 we're 13:17 14:9 15:16 24:1 43:25 67:15 68:21 71:17 81:10 83:23 87:24 we've 41:2 55:21 71:13 week 21:19 23:4 weekly 18:18 50:12 weeks 19:23 went 10:8,15 42:13 weren't 60:22	68:6 whatsoever 59:4 72:17 75:17 84:5 86:17 wheat 30:3,3 wheel 14:13,16 15:7,10 42:1 45:8 wheelhouse 66:23 67:1,18 wheels 15:1 width 54:13 WILSON 2:2 witness 4:12 6:5 6:21 12:23 13:20 89:1 word 8:15 54:3 61:3 89:18 words 12:6 14:24 29:21 37:14 46:1 56:7 63:18 64:16 75:1 77:11,20 81:21 92:16,19 work 4:21 8:25 9:12 18:16 31:19 33:2 35:1 37:24 44:9,13 51:5 52:7 59:14 61:25 74:20 worked 9:6 10:1 10:4 48:6 working 10:2 38:11,15,17 39:14 40:6,20 40:21 41:14 42:3 43:5 48:7 77:10 78:19 89:12,20 worries 22:3,20 wouldn't 17:20 49:20 73:4,5 write 86:10,12	written 7:16 wrong 19:8 34:10 76:25 89:7 <hr/> X <hr/> Y <hr/> yeah 8:14 11:18 12:6 21:25 24:7 28:4,5,16 29:11 30:17 45:11 51:18 53:12 59:11 60:18 66:17 79:24 82:12 year 11:5 years 8:18,19 11:7,8 Yellow 30:2 yesterday 55:16 <hr/> Z <hr/> zero 17:4 71:5 <hr/> 0 <hr/> 00-00 24:6 06-June-2021 5:19 <hr/> 1 <hr/> 1 4:4 7:8 18:21 18:21 19:7,11 19:13,17,18,21 20:2 25:22,25 35:15,24,25 36:4 38:15 39:5 40:11 41:13 42:2 43:4 45:7,14 46:18,19,21,22 47:6,15,16,19 53:22 58:3,15 58:18 59:24 60:7 61:21 62:25,25 63:7	64:5,9 65:2 76:24 77:2 81:12 84:19,22 86:11 90:2 10 5:4 14:25 15:8,8,10 16:3 16:5 36:2 54:8 56:15 72:18 81:15 84:15 11 5:8 7:10 55:11,22 82:23 11-July-2021 5:20 11th 83:10 12 5:11 23:17 26:18 71:13 82:19,19 12-May-2021 5:19 82:25 12th 23:18 32:19 13 5:13 24:18,18 26:18 71:19 14 5:15 71:2,21 72:5 1434 93:16 1434(B) 92:6 15 5:17 24:19 43:17 48:1,3,5 74:14 82:16 83:1 84:15 15-Maintenance 4:24 1710 1:20 19 5:5 19th 1:14 <hr/> 2 <hr/> 2 4:6 7:9 19:9,15 19:24 24:15 38:11,14,16,17 39:14,17,18,19 39:25 49:3 57:2 58:4,11 58:17 59:24 60:7 61:9,22	62:25 63:8 64:10 76:25 77:5 81:13 84:21,23 90:2 2:21-cv-01331 1:5 20 74:9 81:16 84:15 2006 10:7 2011 10:7 2016 5:10 10:9 10:10 2021 1:14 82:23 83:11 20250 1:12 22-June-2021 5:19 82:24 2200 2:4 23 4:11 230 56:16 2500 56:20 26 4:14 28 92:5 <hr/> 3 <hr/> 3 4:8 9:20 67:5 3:22 28:3 30 81:16 3101 1:13 35 81:16 364.6 54:19,20 365 1:20 37:2554 93:8 38 54:24 55:4 1:12 7:15 39 54:24 55:4 <hr/> 4 <hr/> 4 4:11 23:23 24:3 4-4-0 20:13,14 40 20:8 400 20:10 44 4:16,20 440 20:7,9,11
--	--	---	--	--

5				
5 4:14 26:17				
50 4:22 5:1				
54 5:4				
55 5:8				
6				
6 4:16 44:2				
55:14,24 56:10				
6-June-2021				
82:24				
650 2:4				
6S50MC 23:1				
7				
7 3:4 4:4,6,20				
44:9,12				
70114 1:14				
70130 1:21 2:4				
71 5:11,13,15				
8				
8 4:22 50:4				
82 5:17				
86156 93:24				
87 3:5				
89 3:6				
9				
9 4:8 5:1 50:14				
93 93:8				