NATIONAL TRANSPORTATION SAFETY BOARD

IN RE:	
THE EL FARO INCIDENT OFF THE COAST OF THE BAHAMAS ON OCTOBER 1, 2015	NTSB Accident No. DCA16MM001

INTERVIEW OF: CAPT. JOHN HEARN

Wednesday,
March 30, 2016

Smith, Katzenstein & Jenkins, LLP
Wilmington, Delaware

BEFORE:

MIKE KUCHARSKI, NTSB
CARRIE BELL, NTSB
JON FURUKAWA, NTSB
MIKE RICHARDS, NTSB*
TOM ROTH-ROFFY, Investigator-in-Charge, NTSB
ERIC STOLZENBERG, NTSB*
MIKE MILLAR, ABS*
PATTY FINSTERBUSCH, TOTE Services*
JIM FISKER-ANDERSON, TOTE Services*
LEE PETERSON, TOTE Services*
KEVIN STITH, TOTE Services*
CDR [redacted] USCG*
[redacted] USCG*
CAPT JASON NEUBAUER, USCG
[redacted] USCG*

*Present via teleconference

This transcript was produced from audio provided by the National Transportation Safety Board.

APPEARANCES:

ON BEHALF OF THE INTERVIEWEE:

LAURENCE CRONIN, ESQ.
of: Smith, Katzenstein & Jenkins, LLP
1000 West Street, Suite 1501
Wilmington, Delaware 19801
(302) 504-1680
lvc@skjlaw.com

1 P-R-O-C-E-E-D-I-N-G-S

2 9:35 a.m.

3 INVESTIGATOR KUCHARSKI: Okay. Good morning
4 again, everyone on the telephone. We are back on the
5 line now. We are ready to commence the interview.
6 This is Mike Kucharski. Today is March the
7 30th and it is, approximately, 9:35 a.m. We are at the
8 Offices of Smith, Katzenstein & Jenkins in Wilmington,
9 Delaware. And we are here to perform an interview or
10 to interview Captain John Hearn.
11 The purpose of the investigation is to
12 increase safety, not to assign fault, blame, or
13 liability. We are here to particularly investigate the
14 facts surrounding the loss of the El Faro and the facts
15 to interview Captain Hearn on his knowledge of the
16 vessels and the operations.
17 The NTSB cannot offer any guarantee of
18 confidentiality or immunity from legal or certificate
19 actions. You will be provided a transcript, a summary
20 of the interview to review and it will also go into the
21 public docket. That will come to you, Captain Hearn,
22 before it goes out to the parties for you to review.
23 CAPT. HEARN: Okay.
24 INVESTIGATOR KUCHARSKI: The -- you, as an
25 interviewee, can have one representative of your

1 choice. And when we go around the room, I will ask you
2 if you have a personal representative identified.
3 CAPT. HEARN: Yes, sir.
4 INVESTIGATOR KUCHARSKI: And, Captain Hearn,
5 so we have it on the tape, as I mentioned, we have this
6 recorded and you're okay with recording that?
7 CAPT. HEARN: Yes, sir.
8 INVESTIGATOR KUCHARSKI: As far as your
9 representative goes, the personal representative, he
10 may be an attorney, not required to be an attorney.
11 The representative may not testify for the interviewee.
12 Of course, if you care to confer with your
13 representative, that's fine. And we can stop. It's
14 not -- we would like to get it right the first time.
15 CAPT. HEARN: Um-hum.
16 INVESTIGATOR KUCHARSKI: You know, the -- so
17 if there is any confusion or if any one of us pose a
18 question that may not be clear, please, stop us and we
19 will try to clarify that to the best of --
20 CAPT. HEARN: Yes, thank you.
21 INVESTIGATOR KUCHARSKI: Sure. The --
22 before I go around and introduce all those here, my
23 name is again Mike Kucharski. And I am the Group
24 Chairman for the Nautical Operations Group for the NTSB
25 part of the investigation.

1 And now, would you, please, state your full
2 name and spell it for us for the record?
3 CAPT. HEARN: My name is John N. Hearn, H-E-
4 A-R-N. I go by Jack Hearn.
5 INVESTIGATOR KUCHARSKI: Is that what you
6 prefer us to call you, Jack or John?
7 CAPT. HEARN: Yes, I prefer Jack, yes.
8 INVESTIGATOR KUCHARSKI: Will do. And to my
9 right?
10 INVESTIGATOR ROTH-ROFFY: Good morning,
11 Jack. Tom Roth-Roffy, Investigator-in-Charge of the
12 NTSB's investigation of the accident. Thank you very
13 much.
14 CAPT. HEARN: Yes, sir.
15 INVESTIGATOR FURUKAWA: Hi, good morning,
16 Jack. Jon Furukawa.
17 CAPT. HEARN: Yes, sir.
18 INVESTIGATOR FURUKAWA: I'm the Survival
19 Factors Group Chairman, NTSB.
20 CAPT. NEUBAUER: Good morning, Jack.
21 CAPT. HEARN: Captain.
22 CAPT. NEUBAUER: I'm Captain Jason Neubauer.
23 I'm the Chairman of the Coast Guard's Marine Board of
24 Investigation. We are doing an independent
25 investigation for the NTSB.

1 CAPT. HEARN: Yes, sir.

2 INVESTIGATOR BELL: Good morning. I'm

3 Carrie Bell. I'm the Human Performance Group Chairman

4 for NTSB.

5 CAPT. HEARN: Um-hum.

6 MR. CRONIN: And I'm Larry Cronin. I'm your

7 attorney.

8 CAPT. HEARN: Roger that.

9 INVESTIGATOR KUCHARSKI: Just for

10 clarification purposes, you are his personal

11 representative?

12 MR. CRONIN: That's correct.

13 INVESTIGATOR KUCHARSKI: Okay. Great.

14 Thank you. And on the telephone starting with NTSB,

15 could you identify yourself, please?

16 INVESTIGATOR RICHARDS: Mike Richards. I am

17 the Group Chairman for Meteorology, NTSB.

18 INVESTIGATOR STOLZENBERG: Eric Stolzenberg,

19 Naval Arms Group Chairman, NTSB.

20 INVESTIGATOR KUCHARSKI: Okay. Now, for

21 Coast Guard? Coast Guard on the phone, please?

22 CDR. [redacted] Good morning, Captain. This

23 is Commander [redacted] [redacted] with the Coast Guard. I'm

24 with the Operations Group of NTSB's investigation.

25 MR. [redacted] Good morning, Captain Hearn.

1 [redacted] [redacted] Human Factors Group member. Thank you,
2 sir.
3 INVESTIGATOR KUCHARSKI: TOTE? TOTE on the
4 phone, please?
5 MR. PETERSON: Yes, Lee Peterson. I'm the
6 party coordinator for TOTE.
7 MR. FISKER-ANDERSON: Jim Fisker-Anderson
8 with the TOTE's Engineering Group, NTSB.
9 MS. FINSTERBUSCH: Patty Finsterbusch, TOTE
10 Services, Liable Factors Group.
11 INVESTIGATOR KUCHARSKI: Okay. Great.
12 MR. STITH: Kevin Stith, Nautical Operations
13 Group.
14 INVESTIGATOR KUCHARSKI: Okay. Thank you,
15 Kevin. Any other TOTE personnel on the phone?
16 MR. STITH: No, that's it.
17 INVESTIGATOR KUCHARSKI: Okay. And are
18 there any HEC personnel or ABS on the phone? Okay.
19 Thank you very much, everyone, Captain Hearn.
20 MR. MILLAR: This is Mike Millar with ABS.
21 INVESTIGATOR KUCHARSKI: Okay.
22 MR. MILLAR: Captain Hearn, Mike Millar with
23 ABS and I'm on old wonder phone. I'm going to use my
24 phone, so I don't create static on the line.
25 CAPT. HEARN: Yes, sir.

1 INVESTIGATOR KUCHARSKI: Okay. Thank you,
2 Mike. Captain Hearn, one thing I would like to have
3 your agreement on is not to discuss this interview or
4 the information obtained at this interview with anyone
5 outside of this investigation.
6 CAPT. HEARN: Yes, sir.
7 INVESTIGATOR KUCHARSKI: Okay. And unless
8 otherwise stated in these questions, they will
9 concentrate on the Ponce Class vessels. Okay?
10 CAPT. HEARN: Okay. Roger.
11 INVESTIGATOR KUCHARSKI: Would you mind
12 starting off with your background in the Marine field,
13 starting, you know, with education, then your
14 experience?
15 CAPT. HEARN: I started in 1974 on tugboats.
16 Then I went to the U.S. Merchant Marine Academy for
17 four years, graduated from the academy in '79. I
18 immediately went to sea on tankers. I was on tankers
19 for a few years. Then I went over to military
20 auxiliary ships for about a two or three year period.
21 And then I started working for TOTE on the west coast
22 in 1986. I was there for about 20 years. And then I
23 went to the east coast to the SeaStar Fleet and I
24 worked there until I retired.
25 There was periods in between there where I

1 was on myriad ships or other functions and different
2 types of voyages, but always primarily with the company
3 that today is TOTE Services.
4 INVESTIGATOR KUCHARSKI: Okay. And the
5 positions you mentioned, you were on tankers first?
6 CAPT. HEARN: I was a third mate on tankers
7 and a second mate on tankers. Although I was Chief
8 Mate on the Navy Auxiliary ships and Chief Mate on the
9 TOTE ships for about three years on the Alaska Run.
10 And then I started sailing captain in 1989. And stayed
11 captain until I retired.
12 INVESTIGATOR KUCHARSKI: Okay. So all your
13 experience on the TOTE ships was either as chief, mate
14 or master?
15 CAPT. HEARN: That's correct.
16 INVESTIGATOR KUCHARSKI: And you mentioned -
17 - oh, let me ask, what is it you are doing now?
18 CAPT. HEARN: Now, I'm retired, but I have
19 like a part-time job working for the Delaware Pilots as
20 a Vessel Traffic Information Officer. I'm a Watch
21 Officer at The, what they call, Tower. And I
22 coordinate the pilots and the ships coming in to the
23 Port of Philadelphia and Wilmington, Delaware River and
24 Bay.
25 INVESTIGATOR KUCHARSKI: And is there

1 anything else you are involved with now?
2 CAPT. HEARN: I'm also Executive Director of
3 a nonprofit that helps work force development and
4 primarily people, individuals, called the American
5 Professional Mariners Association.
6 INVESTIGATOR KUCHARSKI: Let me stop right
7 there for a second and go around the room. We are on
8 the -- to start with, are there any questions about
9 Captain Hearn's background?
10 INVESTIGATOR FURUKAWA: Jon Furukawa, NTSB.
11 CAPT. HEARN: Yes, sir.
12 INVESTIGATOR FURUKAWA: What year did you
13 retire from active sailing?
14 CAPT. HEARN: I stopped sailing in '13 and
15 took my pension in '15.
16 INVESTIGATOR FURUKAWA: Thank you.
17 CAPT. HEARN: You're welcome.
18 INVESTIGATOR KUCHARSKI: Anyone on the phone
19 have questions for Captain Hearn?
20 TOTE: Nothing from tote.
21 INVESTIGATOR KUCHARSKI: Okay. And Captain
22 Hearn, this is Mike Kucharski again. You said you took
23 a retirement?
24 CAPT. HEARN: Yes.
25 INVESTIGATOR KUCHARSKI: Was -- where did

1 you retire from?
2 CAPT. HEARN: From American Maritime
3 Officers Union.
4 INVESTIGATOR KUCHARSKI: And when you were
5 sailing on-license, was that also through AMO?
6 CAPT. HEARN: No. When I was sailing on-
7 license, there was a -- it was just a non-union job on
8 tugboats in Philadelphia Harbor.
9 INVESTIGATOR KUCHARSKI: Okay. Great. I
10 would like now to concentrate on the Ponce Class
11 vessels.
12 CAPT. HEARN: Yes, sir.
13 INVESTIGATOR KUCHARSKI: Could you explain
14 starting from the Alaska Trade that you worked on what
15 the Ponce Class vessels consisted of on the Alaska
16 Trade and then bring us into the Puerto Rican Trade.
17 CAPT. HEARN: The Ponce Class ships are
18 vehicle carriers. They -- mostly tractor trailers and
19 vehicles, cars, but they can carry any other type of
20 vehicle that travels on. They also carry some lift-on
21 cargo, but it would only be on the upper deck.
22 The Alaska Run had an extra deck, a partial
23 deck, what we call the Spar Deck above the main deck.
24 The deck below that was the second deck, it's a shelter
25 deck area. And I'm not sure what you want to know

about the ship itself. I have -- I started sailing on the ships in 1986 until I retired, except for about a four year period that I was on the Nu-Class ship, so I have quite a bit of time with those ships.

And the innovations that came with those ships, especially on the Alaska Run, there was a lot of changes because of the rough weather experienced up there and how we innovated with them. And then the transition also, the same class of ship, over at SeaStar because -- well, for example, the El Faro and the Alaska Run was the Northern Lights, so it was a Ponce Class that carried vehicles.

When it was converted to carry containers on the upper deck, it was -- became the El Faro. And it's a whole different ship really.

INVESTIGATOR KUCHARSKI: And were you master and mate on all the Ponce Class that TOTE had on the Alaska Trade?

CAPT. HEARN: I was master of every ship that the company owned in that class. All three on the west coast and all three on the east coast.

INVESTIGATOR KUCHARSKI: Okay. And when you talk about carrying vehicles on trailers on the Alaska Run, could you briefly describe the operation? Was it a one ramp operation? How many ramps?

1 CAPT. HEARN: It depended on the port at
2 Alaska and then on -- in Tacoma, it was just a two-port
3 run there. And when -- I'm a little bit confused
4 because you want me to talk about Alaska now?
5 INVESTIGATOR KUCHARSKI: Yes, just Alaska,
6 and then we will move on.
7 CAPT. HEARN: In Alaska, primarily, it was a
8 three-port, a three ramp operation with that class of
9 ship. To expedite cargo on and off, the more ramps you
10 had on, the more vehicles you could move on and off.
11 You have a traffic pattern and flow, so you could get
12 the vehicles into position, park them and go out and
13 get the next one with the Hustler. So there was a
14 multiple ramp cargo system.
15 INVESTIGATOR KUCHARSKI: And where did the
16 ramps come on-board in Tacoma?
17 CAPT. HEARN: They were all side-loading
18 ramps.
19 INVESTIGATOR KUCHARSKI: On the port side?
20 CAPT. HEARN: At Tacoma on the starboard
21 side and in Alaska on the port side.
22 INVESTIGATOR KUCHARSKI: And where did they
23 come into on the starboard side?
24 CAPT. HEARN: The after-section, the mid-
25 body and the bow.

1 INVESTIGATOR KUCHARSKI: Was there a
2 particular deck that they came into?
3 CAPT. HEARN: Yes. The mid-body, the second
4 deck, on the starboard side and on the upper deck or
5 the main deck, we called it, it was not the main
6 seaworthy deck, it was the main deck, and that was on
7 the starboard side in Tacoma. But on the port side, it
8 was only the main deck.
9 INVESTIGATOR KUCHARSKI: On the port side it
10 was the main deck?
11 CAPT. HEARN: In Alaska.
12 INVESTIGATOR KUCHARSKI: In Alaska.
13 CAPT. HEARN: Yes, right.
14 INVESTIGATOR KUCHARSKI: Okay. So --
15 CAPT. HEARN: You have a high tie range
16 there of 30 feet plus, up to 39 feet. And you could
17 only reach that deck a lot of times.
18 INVESTIGATOR KUCHARSKI: So you had ramp
19 openings on the starboard side, second deck, for
20 Tacoma?
21 CAPT. HEARN: The second deck ramp openings
22 were mid-body and aft, but that -- and that deck had
23 many openings on the hull. Also for fuel ventilation
24 and the ramp openings themselves and the stern was
25 completely open.

1 INVESTIGATOR KUCHARSKI: Okay. And was the
2 -- on the starboard side forward, was there a ramp
3 opening there?
4 CAPT. HEARN: There was at one time, but it
5 was enclosed. There were still openings there, but
6 they were not for -- only for like mooring lines or
7 ventilation, natural ventilation, not for cargo.
8 INVESTIGATOR KUCHARSKI: Okay. Any
9 questions on the setup on the Alaska Run for the
10 vessels or what they did? On the phone? Okay. Yes,
11 anyone?
12 Okay. So this is Mike Kucharski continuing.
13 Then so you said you were master on the vessels when
14 they were on the Alaska Run and then you were master
15 when they came over to the Puerto Rican Run?
16 CAPT. HEARN: Okay. Correct.
17 INVESTIGATOR KUCHARSKI: Okay. And was that
18 the El Morro, the El Yunque and the El Faro, all three?
19 CAPT. HEARN: I was on all three.
20 INVESTIGATOR KUCHARSKI: Okay.
21 CAPT. HEARN: Mostly on the El Faro.
22 INVESTIGATOR KUCHARSKI: Okay. And could
23 you walk us through the operation on the --
24 CAPT. HEARN: The cargo operation for the
25 SeaStar Run was different. It was containerized on the

upper deck, what -- the main deck. And completely containerized up there, lift-on/lift-off. Below deck was only one ramp opening on the stern for the lower deck vehicles. And it was only vehicle down there or trailer-on/trailer-off. And that was only through the stern.

The mid-body ramp was still open with breakwaters, but it was not enclosed and it was still the same natural ventilation openings, hull openings throughout the ship for no mechanical ventilation. The only mechanical ventilation was for air exchanged in the cargo holds down below.

The cargo went down below decks by ramp, so it had to be trailered down there. And those large door openings to go down below all the way to the tank top are large trailer doors for tractor trailer to drive in one vehicle at a time. The ramps and then to get to the lower deck was an elevator. I could handle roughly 30 tons.

INVESTIGATOR KUCHARSKI: When you say the lower deck, are we talking about the whole --

CAPT. HEARN: The tank top.

INVESTIGATOR KUCHARSKI: The tank top. Okay.

CAPT. HEARN: There were two decks down

1 below in watertight areas and then the second deck was
2 not watertight. And the upper deck, the main deck was
3 containerized.
4 INVESTIGATOR KUCHARSKI: Was the -- did the
5 ramp come on-board in --
6 CAPT. HEARN: They were -- the ramps were on
7 the dock and they were lifted on by gear that was on
8 the ship. A pulley system.
9 INVESTIGATOR KUCHARSKI: And was there a
10 particular side that the ramp came on?
11 CAPT. HEARN: Yes, starboard side only on
12 both ports or all ports. That's right.
13 INVESTIGATOR KUCHARSKI: Now, you said you
14 were on all three ships as master.
15 CAPT. HEARN: Correct.
16 INVESTIGATOR KUCHARSKI: Were there major
17 differences? Can you point out the differences between
18 the vessels? Do you recollect?
19 CAPT. HEARN: Yes. The cargo difference is
20 with the El Faro compared to the El Morro and the El
21 Yunque was slightly different because it was modified
22 after the El Morro and the El Yunque had been in
23 operation for a number of years, about nine years.
24 They converted the Northern Lights to the El Faro date
25 and changed some of the cargo configuration to carry

1 longer containers on the upper decks. So she was
2 modified to carry the flexibility that they realized
3 they would need as the ships continued.
4 The Morro and the Yunque had carried rum,
5 both rum and tanks on the bow for a long period of
6 time. They also on the lower tank top level had
7 fructose tanks installed. The El Faro did not have
8 those fructose tanks. These were very heavy, large
9 tanks. Much larger than you would see even on a train
10 system. And they were located in the bow and in the
11 second deck. Excuse me, on the bow and No. 2 hold on
12 the tank top level. No. 1 hold, No. 2 hold.
13 INVESTIGATOR KUCHARSKI: Okay.
14 CAPT. HEARN: Those are the major
15 differences.
16 INVESTIGATOR KUCHARSKI: And you say El Faro
17 did not have the fructose tanks when you were on-board?
18 CAPT. HEARN: El Faro, when I was on there,
19 did not have conversion for fructose tanks down low and
20 she was never configured for the rum tanks on the bow.
21 INVESTIGATOR KUCHARSKI: Any questions
22 around the room? On the telephone?
23 Okay. Captain, I would like to go now into
24 cargo securing specifically.
25 CAPT. HEARN: Okay.

1 INVESTIGATOR KUCHARSKI: While you were on-
2 board the vessel, were there a substantial number of
3 off-button stows?
4 CAPT. HEARN: Not really, no. Most -- if
5 you went down below deck, most of the stows below decks
6 were on a button, unless it was a vehicle that didn't -
7 - wasn't configured to go on a button. So I would say
8 over 90 percent would always be on a button. If it was
9 a case where it was not on a button, there was extra
10 latches put on the roloc box.
11 INVESTIGATOR KUCHARSKI: And did these --
12 the ones that were -- the 10 percent that were off-
13 buttoned, did that vary by any season?
14 CAPT. HEARN: No, not that I remember.
15 INVESTIGATOR KUCHARSKI: Do you know if the
16 -- somehow the off-button stows were annotated or
17 indicated on any of the stow plans?
18 CAPT. HEARN: No, they wouldn't be done that
19 way. The chief mate when he was checking cargo would
20 look for that kind of an issue and if the longshoreman
21 didn't latch it correctly, then he would make sure it
22 was done or he would have the crew do it during voyage
23 and try to keep up with it.
24 INVESTIGATOR KUCHARSKI: Do you know if
25 there was a list of the locations of all fixed cargo

1 securing devices, like D-rings, buttons, pad-eyes, for
2 the El Faro?
3 CAPT. HEARN: There was an approximate list,
4 but it had changed depending on the operation,
5 especially the El Faro. She had come to SeaStar to be
6 on the Puerto Rican Run, but almost immediately she was
7 transferred to the -- to what -- Charter Service to go
8 to the Mid East. So she was carrying heavy tanks on
9 that run.
10 And we had added a lot of D-rings on the
11 second deck, which gave that ship a lot more
12 flexibility to secure cargo. So she was, of the class,
13 the best on that deck with extra lashing points.
14 INVESTIGATOR KUCHARSKI: On the second deck?
15 CAPT. HEARN: On the second deck.
16 INVESTIGATOR KUCHARSKI: Um-hum.
17 CAPT. HEARN: The lower decks had different
18 configurations. They had clover leafs until you got to
19 the tank top and the tank top level had D-rings again
20 welded into the deck.
21 INVESTIGATOR KUCHARSKI: So you said that
22 the El Faro had the greater capability, D-ring
23 capability?
24 CAPT. HEARN: Yes, it did.
25 INVESTIGATOR KUCHARSKI: And that was

predominately on the second deck that those were added?

CAPT. HEARN: Correct. For vehicles. That's to -- you know, the upper deck -- I mean, we are talking about vehicles. We are talking about those type of lashing points. It had about the right flexibility for stows with the roloc box and the pin that went and held those trailers. They were designated stows and they didn't get that much cargo on the ship that was vehicle/ trailer cargo that they weren't prepare for.

So we usually knew what we were getting with that. And it went into a stow position where it could be handled. And because that ship had the extra D-rings, even if it was a different size, it wasn't a standard size trailer, there was usually cargo lashings in position for it normally, you know, through the ship.

INVESTIGATOR KUCHARSKI: Um-hum. Do you know if there was any -- and I would like to break this into the Alaska Run and I would like to then go to the Puerto Rican Run.

CAPT. HEARN: Okay.

INVESTIGATOR KUCHARSKI: Was there a testing program in place for the permanent securing arrangements on the vessel?

1 CAPT. HEARN: Only by inspection with the
2 chief mate. There was no testing program that, you
3 know, where you would go out and test, strength test
4 any of the lashing points. It was mostly visual
5 inspection for wear of the lashing points. And the
6 maintenance to that was the guys would go out with
7 hammers and break free if they were rusted up or
8 frozen, because that could be a problem.
9 But and then they would see, you know,
10 visually when they were checking those things like that
11 if they had lashing points that were frozen and then if
12 it's frozen, it could be unusable.
13 INVESTIGATOR KUCHARSKI: Okay. When you
14 talk about frozen, are we talking about the D-rings in
15 particular?
16 CAPT. HEARN: Yes. That's what I mean by
17 frozen.
18 INVESTIGATOR KUCHARSKI: Was there any
19 testing program on the Alaska Run for testing the
20 buttons?
21 CAPT. HEARN: Yes. On the Alaska Run, we
22 had found that the buttons could wear out from the
23 inside. And there had actually been a miscasting of
24 some buttons that were replaced where they sent us deck
25 buttons that were too large on the inside for the pin

that slid into that and twisted around. It didn't lock correctly and it would actually swing through the securement device and pull back up out of the securement device, out of the deck button.

And so we used to test those with a standard sized pin that was on all of the roloc boxes to make sure, number one, that there was no wear on the inside of that button where the pin could swing around and pop out again and become unsecured or, two, if someone put the wrong type of deck button on the ship, which would be rare, but it had happened before, so we would test it.

On the Alaska Run, we had changed quite a few deck buttons in the 10 year period that had been wearing out or had been incorrectly installed. But after that, it slowed down quite a bit. But on the SeaStar Run, I don't know about that kind of -- we didn't test it, except on the El Faro we did test them on there, because we had the pin.

INVESTIGATOR KUCHARSKI: So going back to the testing procedure, could you maybe explain how the trailer, the roloc box, is it --

CAPT. HEARN: Um-hum.

INVESTIGATOR KUCHARSKI: -- that --

CAPT. HEARN: It's the roloc box.

1 INVESTIGATOR KUCHARSKI: -- attaches, does
2 that -- that attaches to a trailer first?
3 CAPT. HEARN: The roloc box is a very heavy
4 pedestal device that is heavy plate steel about 1 inch
5 thickness with a turntable on top of it that fits the
6 king-pin on a tractor trailer, just like you see on a
7 trailer itself. The exact device basically. And so it
8 can handle that weight and the strength of the trailer
9 itself and tow it. And then on the front of that is
10 another trailer device for the deck hustler, the cargo
11 hustler that will work in the terminal to tow the
12 vehicle, to two the trailer onto the ship.
13 The pedestal was built so heavy that it was
14 -- it could take the weight of the trailer and hold it
15 up as -- like the -- otherwise, you take a tractor out,
16 you have legs that come down about a third of the way
17 or a quarter of the way back on the tractor trailer
18 that you put down.
19 They are not strong enough to hold the
20 trailer up on a sea voyage, but this pedestal, the
21 roloc box was strong enough. And I have never saw one
22 fail. They were -- they would be secured to the deck,
23 what we call a deck button, which is a round circular
24 round heavy casting that was also very strong. And a
25 pin came from the roloc box through a heavy ring. That

1 pin was a machined pin with a nut on the end of it to
2 secure it and it was held on -- held by a spring.
3 You will pull it down into the deck button,
4 turn it into the button and you would usually twist it.
5 Because it was on a spring, it could also be twisted
6 backwards. That spring would torque it into the button
7 to hold it in position. Then you would lock it with a
8 nut on the top to keep the thing in position. But if
9 the nut became loose, the pin should still be torqued
10 into the deck button. Vibration could set it off
11 and/or, you know, if somebody torqued it the wrong way,
12 the nut if it wasn't tight, it would pull up out of it.
13 So we had a problem sometimes with somebody
14 doing it the incorrect way and there was actually
15 training for the longshoremen to make sure that they
16 understood that, that torque, because that was
17 important that it was torqued the right other,
18 otherwise it would come out if there was any kind of
19 loose vibration.
20 INVESTIGATOR KUCHARSKI: And is there
21 anything inside the button that prevents that pin from
22 turning through 360?
23 CAPT. HEARN: The casting -- that's what I
24 was trying to explain the wear. You would have to see
25 one from upside down actually, but there is almost like

a cam arrangement where the pin, which is basically a T-bar upside down, would swing around and hit two locking devices against it that would hold it into the pin as it was torqued into the pin, into the deck button. So it would swing and just lock into it and stay there.

And then you would secure it tight with the nut on top. And they would actually pound those nuts with a bar or a hammer to make sure they stayed tight because the vibration and the motions of the ship would work on that device and could loosen it.

So one of the main issues with lashings, with tightening lashings was to check the lashings on the rear of the vehicle or the trailer and to check the button in the front to make sure that that pin was tightly secured into the deck button.

INVESTIGATOR KUCHARSKI: So on the Alaska Run, you -- it was difficult to go in and look at that button to tell if it was functioning properly?

CAPT. HEARN: It was work. You go through -- all the cargo area is -- it's work because you have to climb over lashings. You are squeezing through cargo. It could be dark. With the -- even with the cargo lighting, which was almost always on in the cargo spaces, you couldn't always see under the trailers

1 because the cargo could block the light coming from the
2 overheads.
3 So a lot of times you might use a
4 flashlight. If you had daylight, there was a good
5 chance you could see the pin and double check it that
6 way. But normally, a lot of guys would go right next
7 to it and hit it and double check it that way, because
8 it could look tight, but it would not be tight.
9 INVESTIGATOR KUCHARSKI: Okay. You're
10 talking about now the checking the lashings?
11 CAPT. HEARN: Checking that -- checking --
12 I'm just talking about the roloc box still.
13 INVESTIGATOR KUCHARSKI: The buttons
14 themselves, you said that there was a program to go
15 ahead and test check these on the Alaska Run.
16 CAPT. HEARN: Yes.
17 INVESTIGATOR KUCHARSKI: Was there some kind
18 of a tool that was inserted there to test them?
19 CAPT. HEARN: We had taken a pin that was a
20 standard sized pin from a roloc box and put it on a T-
21 bar and when the cargo area was empty, would walk
22 around and purposefully walk up to each button and test
23 that pin to make sure that there was no wear on the
24 inside of the button and that the button was the
25 correct size for that pin, because if it was not and

1 those locking devices had been worn out from the pin
2 hitting it, which could take years, but still the steel
3 against steel and then plus the working of the ship and
4 these heavy devices, you know, being bolted together,
5 basically, could wear it out. And they did wear out
6 sometimes and you would have to replace it. Cut it off
7 and replace it.
8 INVESTIGATOR KUCHARSKI: So why couldn't you
9 just visually inspect it without this tool?
10 CAPT. HEARN: Because you couldn't see
11 inside of the deck button and you wouldn't know that it
12 didn't work. So you couldn't just visually. It would
13 not work just visually to look at it.
14 First of all, it was underneath the opening
15 where the pin was inserted. And second of all, even if
16 you did look at it, you put your fingers in there and
17 try to figure that it looks good, it may not fit the
18 button. It may not fit the pin. Because it could just
19 be the tolerance. The tolerance could be very tight,
20 because it only needed to stay into the locking device
21 to stay secure.
22 But if -- so an 1/8th of an inch would hold
23 the pin into the roloc button, but if it was missing
24 and it swung around, it comes out, then it's not in
25 there doing you any good at all if the lashing, you

1 know, comes open, basically.

2 INVESTIGATOR KUCHARSKI: And on your

3 experience on the Alaska Run prior to testing them the

4 way that you did with this tool --

5 CAPT. HEARN: Yes.

6 INVESTIGATOR KUCHARSKI: -- did you find

7 that you had a fairly substantial number of trailers

8 that came off the button?

9 CAPT. HEARN: There was a constant problem

10 on the Alaska Run until that device was used. Then we

11 found the two problems: One that they were wearing out

12 and two, that some of the buttons had been miscasted

13 and were cast with a larger opening inside and that pin

14 would swing around and pop out. So that was fixed. It

15 took a few years to find them all, because even though

16 you tested them, sometimes it would be close to wearing

17 out or you might have missed it.

18 And then it became a regular maintenance

19 routine about every year to go around and look at those

20 deck buttons to make sure that they were not wearing

21 out. And if they were, you would mark them for the

22 next opportunity to repair it, either on the voyage or

23 in the shipyard. It's a job to do that. And if you

24 add one, you have to put a header under that button,

25 because it's -- you just can't weld it to the deck.

1 It's got to have a support under the steel plating,
2 usually a beam, we call a header, to help strengthen
3 the deck, so it doesn't rip the deck open. Because if
4 they are installed incorrectly and there is too much
5 stress on the button itself, it will pull out and it
6 will rip the deck open with it, because there is
7 nothing to hold it. The deck is not strong enough to
8 hold that lever.
9 INVESTIGATOR KUCHARSKI: And this program to
10 test the buttons was -- there was no program to test
11 the buttons on the Puerto Rican Trade?
12 CAPT. HEARN: I wasn't aware of it over
13 there. I know that we did it on the El Faro, because I
14 was the captain and we had device on the ship. When I
15 was on the other two ships, I wasn't on the -- I was
16 only on the El Yunque for one tour. I was on the El
17 Morro for about a year. And we had other maintenance
18 issues with that ship that took priority. And it was
19 one of the things I would have liked to have gotten to,
20 but we never did get to it.
21 INVESTIGATOR KUCHARSKI: So the buttons were
22 tested on the El Faro?
23 CAPT. HEARN: Yes.
24 INVESTIGATOR KUCHARSKI: Do you -- that was
25 up until you were sailing as master?

1 CAPT. HEARN: That would -- I stopped
2 sailing on that ship. I was last on that ship in 2012.
3 INVESTIGATOR KUCHARSKI: '12 on the El Faro?
4 CAPT. HEARN: Yes.
5 INVESTIGATOR KUCHARSKI: And whose
6 responsibility, while you were master on the El Faro,
7 was it to test the buttons?
8 CAPT. HEARN: The chief mate.
9 INVESTIGATOR KUCHARSKI: Did you notice, on
10 the Puerto Rican Trade, under any conditions,
11 particularly conditions where the roloc boxes or the
12 stows would come off button?
13 CAPT. HEARN: Not any more than anywhere
14 else. It may. I was on deck a lot to learn that run
15 and that ship, typically because it was a milder
16 weather run, did not have the working on the lashing
17 equipment that you would have in Alaska. So the
18 difference is that you didn't have to worry about the
19 cargo as much. And you didn't have -- the lashings
20 would not loosen as much and the buttons would not
21 become free as much, because that roloc box is a
22 pedestal more narrow than the trailer width.
23 And if you can imagine the trailer moving
24 with the motion of the sea in a rolling position, left
25 to right, it is working that pedestal left and right

1 also. And Alaska, that could be substantial where that
2 pin would be working, working until it finally became
3 free.
4 But on the Puerto Rico Run, it typically
5 would not be a problem, because it didn't work as hard.
6 So you could put it in there finger-tight. It would
7 probably still be there in the next -- you know, during
8 the whole voyage. So it wasn't stressed. So that
9 system wasn't stressed. And that -- so you didn't have
10 to worry about it as much, but it didn't create the
11 issues.
12 So you wouldn't see -- I know your question
13 is did I see that, no, because it wasn't really the
14 same animal. Unless you had weather, but it was very
15 rare to have weather on that run.
16 INVESTIGATOR KUCHARSKI: We will ask you
17 some questions. Well, you know, I guess they would be
18 appropriate here as far as securement goes.
19 But let me stop for a minute and see if
20 there are any particular questions on the buttons or
21 any of the testing.
22 PARTICIPANT: I have one. Captain, you
23 mentioned that you didn't see a lot of problems. Did
24 that mean when you did the El Faro button checks around
25 the 2012 time frame, that you didn't find any bad

1 buttons? Do you remember?
2 CAPT. HEARN: I don't know if -- in 2012,
3 the ship was only activated for about three months.
4 The year before that it was activated -- it had laid up
5 after about a year and a half. I know at that time,
6 they had been inspected because she -- we were starting
7 a new service to Philadelphia and we did have the
8 opportunity to check the entire ship and make sure that
9 she was ready for new cargo.
10 PARTICIPANT: But you don't remember finding
11 any bad cargo --
12 CAPT. HEARN: No.
13 PARTICIPANT: -- security devices?
14 CAPT. HEARN: They were in pretty good
15 shape, the way I remember back in those days. And it
16 takes time. You know, probably on the Alaska Run we
17 had more stress on that system because it was working.
18 Like I said, because you had more weather. It was
19 normal to have rough weather. On the Caribbean Run,
20 you did not, so it didn't -- the wear and tear on the
21 cargo lashing equipment, at least that cargo lashing
22 piece on the ship was not worn as much. That would not
23 -- it was rare to have them fail.
24 PARTICIPANT: Okay. Thank you.
25 CAPT. HEARN: Yes, sir.

1 MR. STITH: This is Kevin Stith with TOTE
2 Services. I've got a couple questions specifically in
3 regards to the roloc boxes and the buttons. So I'll
4 take them one at a time.
5 You said you were both chief mate and master
6 of the El Faro on the Puerto Rican Run. Is that
7 correct?
8 CAPT. HEARN: No, sir. I was chief mate on
9 the Westward Venture on the Alaska Run. I was master
10 on the El Faro on the Puerto Rican Run.
11 MR. STITH: Okay. I see. So specifically,
12 in your experience with these vessels, three vessels,
13 do you know the approximate age of those roloc boxes?
14 Were they originally built with the ships or were new
15 ones ever delivered to the ship?
16 CAPT. HEARN: I don't know. The roloc boxes
17 were maintained and managed by the Shoreside
18 Facilities.
19 MR. STITH: Okay. Do you know what type of
20 maintenance was done on them, if anything?
21 CAPT. HEARN: On the roloc boxes?
22 MR. STITH: Yes, sir.
23 CAPT. HEARN: They were maintained at shore.
24 MR. STITH: Okay.
25 CAPT. HEARN: And if we had -- I know that -

-

MR. STITH: As far --

CAPT. HEARN: Go ahead.

MR. STITH: That's fine. That answers my question.

CAPT. HEARN: Okay.

MR. STITH: As far as the securing of the pin in the button, do you know where there mechanical devices used to secure those or were they hand-tightened? Could you just describe how they were tightened in the button?

CAPT. HEARN: Yes. They were first inserted into the button. The pin was pulled down on that spring that I had mentioned, that's part of the roloc box arrangement. You torque the spring. You torque the pin backwards and then you insert it into the pin and it would torque back into lock into the roloc deck button.

Then on top of that pin was a threaded bolt-type arrangement and a nut at the top of the roloc box. You lowered -- you take -- you would take that nut and tighten it so that when you tighten the nut, the pin pulled up tight inside of the button and tight on the roloc box. So that it was basically bolted together with that nut. And then they would often --

1 MR. STITH: Okay.
2 CAPT. HEARN: -- take a hammer, a sledge
3 hammer, a small one about a 10 pound maul and hit that
4 nut and tighten it very strong.
5 MR. STITH: Okay. Very good. So in your
6 experience, do you say that it was basically tightened
7 by hand and then dogged with a sledge hammer?
8 CAPT. HEARN: Correct.
9 MR. STITH: Okay. Good. In your experience
10 on the Puerto Rican Run, did you ever witness any of
11 the deck buttons failing and if so, what type of damage
12 resulted or was it cracking? Did it pull up? If you
13 can just describe any of those?
14 CAPT. HEARN: On the Puerto Rico Run, there
15 was three ships that I had -- I had that problem on the
16 El Morro. I did not have that problem on the El Faro.
17 MR. STITH: Okay.
18 CAPT. HEARN: On the El Morro, it was more -
19 - okay.
20 MR. STITH: All right. Just a couple more
21 questions about the deck buttons. Do you know who
22 supplied those deck buttons? Basically, what vendor
23 supplied them?
24 CAPT. HEARN: No.
25 MR. STITH: Okay. So do you know --

1 obviously, they were a cast piece. When they were
2 installed, like when you would have to reinstall a deck
3 button, who typically performed that? Would it be the
4 ship's crew or shoreside vendor?
5 CAPT. HEARN: It would depend. If it was
6 installing brand new to a location, like for example we
7 talked about the El Faro, if we were changing the cargo
8 arrangement and they were putting a larger trailer in
9 there, we would try to have it installed in a shipyard
10 or lay period, because it's hot work that would create
11 -- you would have to put a header under the deck button
12 quite often and it would mean welding in the cargo hold
13 like on the second deck or the lower deck and also
14 welding on the upper deck. So it was welding in two
15 different areas. So it was a difficult thing to do.
16 But if it was possible or there was damage
17 or we were just -- it was already an existing header,
18 the crew would install the deck button.
19 MR. STITH: Okay. Regarding the welding
20 procedure, do you know if any special welding procedure
21 was required due to the fact that they were joining a
22 cast piece of metal with plating steel?
23 CAPT. HEARN: No. And the chief engineer
24 would be in charge of that, because it was hot work.
25 MR. STITH: Okay. I'm trying to think. I

1 think that about answers my questions with the buttons
2 and roloc boxes.
3 CAPT. HEARN: Okay.
4 MR. STITH: I'm sorry, I do have one more
5 question regarding that. During annual hull
6 inspections or part of the year inspections, do you
7 know if ABS or Coast Guard either visually or
8 mechanically inspected any of those D-rings or buttons?
9 CAPT. HEARN: No, not on that class ship.
10 MR. STITH: Okay. Thank you.
11 INVESTIGATOR KUCHARSKI: This is Mike
12 Kucharski. Just clarification. Is it you are saying
13 no, you are not aware if they did or are you saying
14 they did not check them?
15 CAPT. HEARN: I never saw them check them.
16 And they were usually not interested in the cargo
17 lashing arrangement. It was not an ABS-approved system
18 on those ships. It was NCB. And they really just
19 looked at the ramp gear. They didn't look at the
20 lashing equipment.
21 And then, of course, the Coast Guard
22 inspections were more about Coast Guard Regulations and
23 this wasn't a regulatory requirement.
24 MR. MILLAR: Captain Hearn, this is Mike
25 Millar with ABS.

1 CAPT. HEARN: Yes, sir.
2 MR. MILLAR: I had a question regarding the
3 roloc box dogging. Who performed the dogging when --
4 tightening up each roloc box to the button?
5 CAPT. HEARN: When the cargo came on-board,
6 the longshoreman would do it.
7 MR. MILLAR: And during the course of your
8 voyages in the -- did you come across instances where
9 they had to be retightened or instances where maybe the
10 longshoreman had not tightened them sufficiently?
11 CAPT. HEARN: Often. That would be part of
12 the routine for the ship's crew to check that cargo
13 almost immediately or as soon as possible after
14 sailing. And depending on the stress of the voyage, if
15 it was weather and the cargo was working, the ship was
16 rolling, it would loosen that cargo more frequently and
17 they would have to be out there sometimes all day long
18 in the Alaska Run.
19 On the run to Puerto Rico, it wasn't as
20 common, so they would make a sweep of the cargo. If
21 the weather was good, then they didn't have to worry
22 about it, you know, through the voyage. And it would
23 stay secure. But if the longshoreman had put it in
24 incorrectly, they would find the pin out and they would
25 reinstall it and tighten it up.

1 MR. MILLAR: And this had occurred on the
2 Puerto Rico Run as well?
3 CAPT. HEARN: Yes. It has happened
4 everywhere.
5 MR. MILLAR: Okay. And you mentioned that
6 the button tends to wear or the button wears to the
7 forces and load and constant retorquing of the T-pin.
8 CAPT. HEARN: Yes.
9 MR. MILLAR: Did any of the T-pins have to
10 be replaced or was that part of the shoreside overhaul
11 of the roloc box?
12 CAPT. HEARN: That would be the shoreside
13 overhaul. If we -- there was a process in Alaska where
14 if we were having problems with the roloc box itself,
15 they were also changing out the pins. We would mark
16 them, if we kept on finding the pin was popping out of
17 the roloc deck button.
18 MR. MILLAR: And would those maintenance
19 requirements, would they be logged or put in a record
20 somewhere?
21 CAPT. HEARN: No. No, we didn't keep a
22 record. Normally, chief mate if he had a problem with
23 a roloc box, he would mark it, notify shoreside. But
24 in the -- on the Puerto Rico Run, because the cargo
25 really-- the system wasn't that stressed I don't -- I'm

1 not familiar with that happening. It was more of a
2 visual inspection for us. If we had a real problem,
3 I'm sure we could notify the port engineer and the
4 people in port and they would take a look at it. But
5 because it was relatively calm, we did not have a
6 problem. You know, that wasn't one of the major or
7 more common things that we dealt with on that run.
8 MR. MILLAR: As part of the -- did you say
9 you served as chief mate as well on the vessels?
10 CAPT. HEARN: Yes.
11 MR. MILLAR: Okay.
12 CAPT. HEARN: In Alaska on the Westward
13 Venture for three years.
14 MR. MILLAR: All right. When it came to
15 doing cargo securing inventory and inspections, how
16 would that be documented? Was it just a routine log
17 inspected it or would they -- would there be any way of
18 accounting for, you know, there were 20 latches that
19 were disposed of and replaced or how was that managed?
20 CAPT. HEARN: It was a little different with
21 SeaStar than Alaska. In Alaska, it was very well-
22 managed with the lashing equipment, the chains. And it
23 was rotated out.
24 In the Puerto Rico Run, it was more common
25 to just -- the El Faro was in and out of service

1 several times. That cargo gear was landed ashore, sent
2 to a facility and then they brought cargo gear back on,
3 so we didn't have the maintenance issues with cargo
4 gear and the work with it.
5 It was a little different with the Puerto
6 Rico Run and they, basically, had fairly good lashing
7 equipment on the run. We're talking about chains and
8 binders.
9 MR. MILLAR: And the roloc box that is
10 included is part of securing equipment?
11 CAPT. HEARN: Yes, sir. But that was
12 managed ashore. Those roloc boxes came on the ship
13 with the cargo, left the ship with the cargo.
14 MR. MILLAR: Okay. If you could identify
15 maybe a percentage? You said that there were some that
16 had to be replaced. Would it typically be one or two a
17 voyage or was it more or less?
18 CAPT. HEARN: We are talking about the deck
19 buttons? I would say --
20 MR. MILLAR: Deck buttons or others.
21 CAPT. HEARN: -- we lost about five a year
22 at the most depending on how hard that ship was
23 working. In Alaska Run, different, maybe 10. But on
24 the Puerto Rico Run, two to five. And that was mostly
25 because the ships were getting older and there was

wear.

MR. MILLAR: All right. Mike, I'll turn it back over to you, sir.

INVESTIGATOR KUCHARSKI: Any follow-on questions along that line on the telephone?

CDR. [redacted] I've got a few. This is Commander [redacted] with the Coast Guard. Captain, the tool that you described that consisted of a pin in order to test the buttons, who developed that tool?

CAPT. HEARN: Me. I was chief mate in the '80s when we were having -- we had some catastrophic cargo damage on the Westward Venture. Actually, we lost quite a bit of cargo, 50 trailers fell over. And there was a big push to find out what we could do to solve this problem.

And the crew and I were finding a lot of the pins were out of the deck button. And I asked the company to give me a -- I designed -- it was just a very simple drawing of a T-bar with the deck pin. And we went around and inspected all of the buttons and found that the pin was swinging around when it was torqued in the button, it was swinging around, against the locking device inside the deck button and coming out. And it was just not supposed to be like that.

And which we found out that the castings

1 were incorrect and too large. So that was a problem
2 for us. Then we also found some of the older ones were
3 starting to wear. The ships, at that time, the
4 Westward Venture was about 9 years-old. So we
5 corrected those problems and we initiated a regular
6 test of those about every year and that's when we would
7 find some of the buttons would wear out.
8 And of course, there could be damage to the
9 button, too, but that was usually visible where the
10 button casting would fracture or shatter and the pin
11 would pull it out, but usually that would happen in
12 very rough voyage. But it could happen with wear and
13 tear, because they, you know, would rust. They would
14 wear.
15 CDR. [redacted] Okay. So the tool that you
16 developed, did you obtain a pin from an old roloc box
17 or how did you obtain it?
18 CAPT. HEARN: No, sir. It was a brand new
19 pin from -- the company supplied from the manufacturer.
20 From the shop, whoever made it.
21 CDR. [redacted] You just procured an extra
22 pin from the manufacturer?
23 CAPT. HEARN: Correct. And that was --
24 there was specific drawings and requirements for the
25 button and the pin to fit.

1 CDR. [redacted] And did the manufacturer have
2 any type of -- you developed this tool. Were there any
3 manufacturer recommendations regarding testing of the
4 buttons?
5 CAPT. HEARN: Not that I'm aware of.
6 CDR. [redacted] And you developed this tool
7 for the vessel that you were on at the time and carried
8 on this practice on vessels you served on subsequently.
9 Was there -- was this process ever written down, any
10 type of procedure that was implemented?
11 CAPT. HEARN: Yeah.
12 CDR. [redacted] By your practice?
13 CAPT. HEARN: Well, the company policy for
14 the chief mate to inspect the gear was part of the
15 operations that was required. And the chief mate had a
16 routine of checking cargo gear almost continuously when
17 he was on deck, but they would document it
18 periodically, at least annually. And that should be
19 part of the inspection to check those buttons. I know
20 on the Alaska Run they were very good about it, but
21 like I said, on the Puerto Rico Run, it was not as
22 consistent there.
23 For -- my experience mostly was with the El
24 Faro and that ship was pretty good about it, but we
25 were on different services. I was going to the Mid

East for a few years, then I was going to Philadelphia. Then I was laid up. So she -- it was hard to keep that ship on a real routine, like the steady service that I had worked with in Alaska. I hope that answers your question, but that's my experience with it.

CDR. [redacted] It does to an extent. So how many of these tools were made? Was it just the one on the vessel that you were on?

CAPT. HEARN: No, there were -- I know that originally they were on all the Alaska ships.

CDR. [redacted] Which -- could you name those? Which ones they were?

CAPT. HEARN: The Westward Venture, Great Land and Northern Lights.

CDR. [redacted] And you are not aware of them being on any of the other vessels that were only on the Puerto Rico Run?

CAPT. HEARN: I know that I described it when I was on the El Yunque and the El Morro, but I was -- and I probably would have, you know, been there longer with the El Morro gotten into that, but we were finding other cargo and things to repair that were more visible and easy to identify, so we were getting to those first.

It was a pretty simple tool and request to

1 get something like that and to go out and inspect them.
2 It just takes time and the opportunity with the cargo
3 area empty to walk around and do it efficiently.
4 CDR. [redacted] Okay.
5 CAPT. HEARN: That ship was -- those ships
6 were in service when I was on them, so it would have
7 been very difficult to --
8 CDR. [redacted] Sure. My last question is
9 you mentioned that a lot of D-rings were added on the
10 second deck of El Faro. Do you recall when those were
11 added, assuming it was when you were on-board?
12 CAPT. HEARN: Yes. A lot of them were added
13 around 2007/08, because we were carrying tanks, M1A1
14 Abrams Tanks to the Mid East. And those vehicles could
15 be, you know, 50 tons and they need a lot of different
16 lashing points to take the pressure off the -- the few
17 lashing points, so we put extra D-rings into the deck
18 to, you know, even the stress on lashings port and
19 starboard.
20 And that gave availability because the tanks
21 when (inaudible) stow lane as a tractor trailer, so
22 there were more D-rings on the El Faro.
23 CDR. [redacted] So those were necessary due
24 to the special cargo that was carried to the Middle
25 East?

1 CAPT. HEARN: That's correct.

2 CDR. [redacted] And when the vessel returned

3 back to typical roll-out cargo that utilized the roloc

4 box instead, were those D-rings simply not used as

5 much?

6 CAPT. HEARN: Correct. They wouldn't need

7 to be used because they usually just used two lashings

8 at the rear of the trailer and the roloc box forward

9 was the standard lashing.

10 CDR. [redacted] Okay. So when those D-rings

11 were added, was that done by -- was that work done by

12 the ship's crew or a contractor?

13 CAPT. HEARN: Both.

14 CDR. [redacted] Both. Do you recall who the

15 contractor was that participated in that?

16 CAPT. HEARN: Yes. If we had the

17 opportunity, we had a couple of lay periods and we used

18 Jacksonville Machine.

19 CDR. [redacted] Thank you, Captain. That

20 concludes my questions.

21 INVESTIGATOR KUCHARSKI: Around the room?

22 INVESTIGATOR FURUKAWA: Captain, Jon

23 Furukawa.

24 MR. STITH: This is Kevin Stith with --

25 INVESTIGATOR KUCHARSKI: Jon, Jon, Jon

1 Furukawa is on right now.
2 MR. STITH: -- TOTE Services.
3 INVESTIGATOR KUCHARSKI: He -- hold on.
4 Jon, maybe you can speak up a little bit?
5 INVESTIGATOR FURUKAWA: Okay.
6 INVESTIGATOR KUCHARSKI: Sorry. He started
7 to talk. Maybe you didn't hear him. Jon?
8 INVESTIGATOR FURUKAWA: For inspections of
9 the cargo gear, you said they weren't ABS, they were
10 National Cargo Bureau?
11 CAPT. HEARN: Yes.
12 INVESTIGATOR FURUKAWA: Did National Cargo
13 Bureau ever come up to the ship and inspect?
14 CAPT. HEARN: The National Cargo Bureau came
15 on-board the ship annually to look at the ramp gear,
16 because we lifted the ramp gear on the ship. And then
17 they would do a survey of the elevator and the
18 operation of the elevator. And they would walk around
19 the elevator and, you know, full lifting position and
20 we will put a test load periodically on the cargo
21 elevator.
22 INVESTIGATOR FURUKAWA: Okay. But not these
23 lashing gear?
24 CAPT. HEARN: Not for the lashing equipment
25 itself, no.

1 INVESTIGATOR FURUKAWA: Okay. Thank you.
2 That's all I have.
3 INVESTIGATOR KUCHARSKI: Kevin, please?
4 MR. STITH: Okay. Sorry about that before.
5 Captain Hearn, a question about the military cargo.
6 Were the buttons every used to secure that cargo?
7 CAPT. HEARN: No.
8 MR. STITH: Okay. In loading and unloading,
9 discharging that cargo, that row of cargo, would they
10 typically roll-over the buttons or were they -- were
11 the buttons ever protected with any plywood or any
12 other type of protection?
13 CAPT. HEARN: No. No, they would drive
14 right over them.
15 MR. STITH: Okay. Do you know if there was
16 a load-grading or a safe working load for those
17 buttons?
18 CAPT. HEARN: I don't remember the exact
19 load rating. I think there was, but I don't know it.
20 MR. STITH: Okay. Those are all my
21 questions. Thank you.
22 INVESTIGATOR ROTH-ROFFY: I have just a
23 follow-up.
24 INVESTIGATOR KUCHARSKI: Tom Roth-Roffy?
25 INVESTIGATOR ROTH-ROFFY: Tom Roth-Roffy,

1 NTSB. Just to follow-up on the load rating, did you
2 ever witness any load testing, pull testing of the --
3 of new buttons or repaired buttons just to validate,
4 you know, the strength of the button?
5 CAPT. HEARN: No, never a load test. And
6 they took lashings ashore for destruction testing, but
7 never anything with the -- on the ship. We never did
8 anything like that. I saw plenty of stress on that
9 equipment, but nothing that was a test.
10 INVESTIGATOR ROTH-ROFFY: So after a new
11 installation or repair, how did you know that it was,
12 you know, strong enough to meet the intended or design
13 stresses?
14 CAPT. HEARN: If it was installed correctly
15 and it had a header under it, it was usually good, the
16 lashing, but there was no test to make sure that it was
17 good. The cargo would be the test, you know, when we
18 put on the cargo and started using it and put it into
19 service.
20 INVESTIGATOR ROTH-ROFFY: Okay. Thank you.
21 That's all I have.
22 INVESTIGATOR KUCHARSKI: Okay. Anything
23 further on the phone? And, Kevin, I do have the Cargo
24 Securing Manual here if -- I will ask some questions
25 specifically with the manual when we go to that if you

1 want to bring those questions back in, we can.
2 Okay. This is Mike Kucharski continuing.
3 You mentioned, Captain, I'm sorry, Jack, the
4 standard lashing for a trailer with a roloc box on the
5 Puerto Rican Run --
6 CAPT. HEARN: Um-hum.
7 INVESTIGATOR KUCHARSKI: -- was to have two
8 lashings at the back end of the trailer?
9 CAPT. HEARN: Yes.
10 INVESTIGATOR KUCHARSKI: And anything on the
11 forward end of the trailer?
12 CAPT. HEARN: The forward end normally had
13 just the roloc box.
14 INVESTIGATOR KUCHARSKI: Okay. And for your
15 time, you mentioned you were last on the El Faro in
16 2012?
17 CAPT. HEARN: Correct.
18 INVESTIGATOR KUCHARSKI: When were you last
19 on a Ponce A Class vessel and when was that on the
20 Puerto Rican Run?
21 CAPT. HEARN: I was on the El Morro until
22 2013.
23 INVESTIGATOR KUCHARSKI: 2013?
24 CAPT. HEARN: Summer of 2013.
25 INVESTIGATOR KUCHARSKI: Summer of 2013.

1 And was there any change to the overall lashing
2 profile, if you will, or how they were lashed? Did
3 they -- was there any change made during that time?
4 CAPT. HEARN: That lashing arrangement was
5 very standard for those ships through the scope of my
6 career with that company and that -- there was a very
7 heavy reliance on the roloc box. It had proven itself
8 quite -- for quite a long time, especially on the
9 Alaska Run and it was serviceable, sturdy and so the
10 ships were fitted with that type of lashing
11 arrangement. And they were -- you could almost say
12 they were built around that kind of lashing arrangement
13 to count on that roloc box, because the king pin held
14 the trailer and it could take the whole weight of the
15 trailer to move it on the ship and it also held it down
16 on the ship itself.
17 The -- on the rear end we would chain the
18 cargo to the deck with the D-rings and the chain, half
19 inch chain.
20 INVESTIGATOR KUCHARSKI: So this is Mike
21 Kucharski, let me drop back to the Alaska Trade. Was
22 there different lashing profiles for different times of
23 year?
24 CAPT. HEARN: Yes, there were.
25 INVESTIGATOR KUCHARSKI: Could you explain

1 what those were?

2 CAPT. HEARN: In rough weather, we -- what

3 we call double-lash, we lashed -- we augmented the

4 front roloc box lashing with additional lashings either

5 -- to the roloc box. Many of the tractor trailers in

6 that service had been modified to have D-ring lash --

7 chain lashings on the front end also, because we were

8 finding that they could twist out or work the roloc box

9 too hard and the roloc box would fail eventually if it

10 was -- or -- and if the crew couldn't get to it to keep

11 the pin tight, then they would fall over.

12 So we would put extra lashings out there to

13 keep it steady and tight. Now, if the roloc box had

14 any angle -- because the roloc box was on a turntable

15 and could be twisted even -- almost 90 degrees

16 longitudinally with the tractor trailer itself, so that

17 it could -- it was not as stable in that direction as

18 it was across it, because it was wider. It was built

19 to be at a 90 degree angle.

20 So if it was angled, it could work and the

21 trailer would be a little -- would not be as steady, so

22 we put heavier lashings forward. And if we couldn't

23 get them on the trailer, if it wasn't built for that,

24 then we would put them on the roloc box to try to keep

25 the roloc box steady.

1 And if we couldn't do that, we would move
2 further back and may even put the legs down to try to
3 stabilize the trailer. But that was difficult on the
4 legs because it would sometimes damage them.
5 INVESTIGATOR KUCHARSKI: Could you explain
6 what you mean if the trailer wasn't suitable for taking
7 the lashings?
8 CAPT. HEARN: Some -- a lot of the trailers
9 on the Alaska Run were modified with a front end
10 fitting to take a half inch chain lashing from the
11 corner at the very front of the tractor trailer down to
12 the deck. But that's an unusual fitting, so, you know,
13 you don't see it anywhere else really, but I have seen
14 it. You don't see it on the east coast. It's not a
15 normal tractor trailer. It's built for a service to
16 Alaska. That's a rough weather run. You see a lot of
17 rough weather, so those trailers were modified for
18 that.
19 INVESTIGATOR KUCHARSKI: So on the Puerto
20 Rican Run you didn't see the modification?
21 CAPT. HEARN: No, it's a fair weather run
22 and because you didn't have the experience or
23 difficulties with your tractor trailers and you had the
24 owner of the tractor trailer would have to modify it.
25 TOTE had a lot of their own equipment there on the

1 Alaska Run. The van, the trailer and tractor trailer
2 van.
3 On the Puerto Run, they were containerized
4 quite often and it may be on a chassis, but those vans
5 were not built for that. They were not modified and
6 you may get, you know, different customers carrying
7 their tractor trailers on the ship. They were not --
8 they were not converted to that kind of service.
9 INVESTIGATOR KUCHARSKI: So back to you
10 mentioned on the -- this is Mike Kucharski continuing,
11 you mentioned on the Alaska Run there was a heavy
12 weather profile?
13 CAPT. HEARN: Yes.
14 INVESTIGATOR KUCHARSKI: Heavy weather. Did
15 that occur at any time of year?
16 CAPT. HEARN: The heavy weather profile on
17 the Alaska Run was usually September to May.
18 INVESTIGATOR KUCHARSKI: Was there any
19 comparable heavy weather profile on the Puerto Rican
20 Run?
21 CAPT. HEARN: No.
22 INVESTIGATOR KUCHARSKI: So in your time
23 from when you left the Puerto Rican Run in 2014?
24 CAPT. HEARN: Yes. Well, I left the Puerto
25 Rico Run in 2013.

INVESTIGATOR KUCHARSKI: 2013. And that was on the El Morro that you were on 2013 --

CAPT. HEARN: Yes.

INVESTIGATOR KUCHARSKI: -- that you left? There was no heavy weather profile or difference in profile from -- seasonal?

CAPT. HEARN: No seasonal profile. The -- when the hurricane season was on, the chief mates would be aware of that and they would -- or if there was just weather that they were worried about, they would -- they could ask for more lashings and more cargo work. But there was no profile.

On the Alaska Run, for example, there would be extra lashers. You know, just -- even just one or two men to help put more lashings on the cargo and they expected it and knew it was coming. But on the other run, it wasn't quite expected.

INVESTIGATOR KUCHARSKI: So --

CAPT. HEARN: The crew would augment that differently.

INVESTIGATOR KUCHARSKI: You said the chief mate would have to ask for the extra lashings. Would that be done in advance or would it be done as the vessel was in port?

CAPT. HEARN: Usually he may send a message

ahead to talk to cargo people or I would do it for him. But typically it would be done in port. And he would -- and if he couldn't get the work done, he would start to augment it with his crew, that would be part of his job.

It was a little easier on the Puerto Rico Run to get that work done, because you didn't have the large cargo volume of trailered vehicles on the Puerto Rico Run that you did on the Alaska Run. The Alaska Run had five decks of, you know, cargo, or vehicles on wheels, but the Puerto Rico Run only had three.

INVESTIGATOR KUCHARSKI: You mentioned a back -- this is Mike Kucharski again. You mentioned the brand new installation for buttons in a new location, you put on a header and it was usually a shipyard job?

CAPT. HEARN: It would be easier to do it with a shipyard with welders, because it was also hot work and it would be above deck and below that deck.

INVESTIGATOR KUCHARSKI: And if it was a replacement of an existing button, it was usually done by the ship's crew?

CAPT. HEARN: Quite often, yes. They would cut off the old button and put a new button on in the same position. Grind it down and weld a new button in

1 the same position.

2 INVESTIGATOR KUCHARSKI: And it was welded

3 on there. Were you aware of any specific

4 qualifications for those welding the buttons onto the

5 deck?

6 CAPT. HEARN: No. If it was done on the

7 ship, the chief engineer would be in charge of any of

8 that work. And may inspect the work, but usually he

9 put a welder that he knew was -- that was good at that

10 kind of work.

11 INVESTIGATOR KUCHARSKI: Was there any

12 involvement by the shoreside, by the port engineers?

13 CAPT. HEARN: Yes. The port engineers would

14 always be aware of any hot work getting done and would

15 ultimately approve that kind of work. They would also

16 bring the equipment on the ship, you know, the buttons

17 that were getting welded in or the D-rings. So they

18 were well-aware of any changes or modifications.

19 INVESTIGATOR KUCHARSKI: And when you say

20 bring the equipment on the ship, you're talking about

21 the?

22 CAPT. HEARN: The buttons.

23 INVESTIGATOR KUCHARSKI: The buttons.

24 CAPT. HEARN: Yeah. And the welding tools

25 and everything. They knew what was going on.

1 INVESTIGATOR KUCHARSKI: Were there -- you
2 were asked about any procedures or written procedures.
3 Were you aware of any deck standard operating
4 procedures?
5 CAPT. HEARN: Yes.
6 INVESTIGATOR KUCHARSKI: Were they written
7 down somewhere?
8 CAPT. HEARN: Well, the company had a Cargo
9 Operations Manual. The -- and of course, the Safety
10 Management System.
11 INVESTIGATOR KUCHARSKI: And the Cargo
12 Operations Manual was separate from the Safety
13 Management System?
14 CAPT. HEARN: I have to refresh my memory on
15 the Cargo Operations Manual, because it was -- there
16 was -- on the Alaska Run, it was very specific. On the
17 -- because it was in different trades with the SeaStar
18 Run. I don't remember the Cargo Operations Manual.
19 I'm sure it was -- I believe there was one there, but I
20 can't remember specifically.
21 INVESTIGATOR KUCHARSKI: Okay.
22 CAPT. HEARN: And I kept every manual in my
23 office, but there was a foot locker of manuals on those
24 ships, so sometimes if I was trying to give you a very
25 honest answer, I could be, you know, misjudging it

1 because I can't remember exactly.

2 INVESTIGATOR KUCHARSKI: Okay. And the last

3 that I would like to ask on that, the lashing profiles,

4 you weren't aware of any seasonal hurricane lashings

5 that were put on the cargo for the Puerto Rican Trade?

6 CAPT. HEARN: No. It was case-by-case on

7 the Puerto Rican Trade.

8 INVESTIGATOR KUCHARSKI: Okay.

9 CAPT. HEARN: Or voyage-by-voyage would be a

10 better way to describe that.

11 INVESTIGATOR KUCHARSKI: I do have more

12 questions on lashings and different conditions, but

13 before I go on, I would like to stop and see if you

14 would like to have a break at all?

15 CAPT. HEARN: We can break, I guess, for

16 five.

17 INVESTIGATOR KUCHARSKI: Okay. Let's take a

18 10 minute break and then we will come back. Everyone

19 on the phone, I'll just put it on mute and then we will

20 light up in about 10 minutes. Okay?

21 MR. STITH: Thanks, Mike.

22 INVESTIGATOR KUCHARSKI: Okay.

23 (Whereupon, the above-entitled interview

24 went off the record at 10:47 a.m. and resumed at 10:57

25 a.m.)

1 PARTICIPANT: -- additional lashing changes,
2 when they were requested, would you say that the
3 shoreside gang, the steelers (phonetic) and the
4 longshoremen were responsive to your request?
5 CAPT. HEARN: I would say for the most part
6 if they could. Sometimes it was -- you know, it's a
7 dock and a ship and sometimes there would be
8 disagreement down there between the chief mate and the
9 longshoremen getting the work done, the steelers
10 getting it done and/or going back and doing more work,
11 because there was a short period of time to get the
12 ship discharged and loaded and keep her on the schedule
13 for getting the, you know, routine work done.
14 And if something was added extra to it, it
15 wasn't expected or if it was difficult, it may not get
16 done and would be left for the ship to complete. But
17 that was kind of part of the trade, even in Alaska
18 where if it was something that couldn't be done, it
19 would be done by the ship and we would deal with it.
20 PARTICIPANT: Okay. Very good. Thank you.
21 INVESTIGATOR KUCHARSKI: Anyone else on the
22 telephone?
23 MR. MILLAR: Captain, this is Mike Millar
24 with ABS. You had mentioned about the buttons being
25 replaced about, you know, maybe five a year and were

1 those specific with your experience on the El Faro?
2 CAPT. HEARN: The El Faro, the buttons were
3 in better condition. We -- so we didn't have to
4 replace that many. Sometimes we were adding some or
5 removing them because they were not in a good position
6 for the cargo arrangement, that was almost equally as
7 common. But it may be that we found one that was worn
8 out and it may be that we had one that had shattered
9 from just wear and tear and they would -- you would
10 just be able to tell visually, you would look at it and
11 see that the top part of the button had opened up and
12 broke.
13 MR. MILLAR: Was that breakage due to the
14 thinning of the material? It just got too thin or?
15 CAPT. HEARN: I think it would be more
16 failure from age and work. It would still be thick.
17 MR. MILLAR: Okay. From cold working?
18 CAPT. HEARN: Cold or just stress over the
19 years.
20 MR. MILLAR: Yes. The -- how about the D-
21 rings? Did they suffer similar type occurrences or
22 was-- were there any issues related to the D-rings?
23 CAPT. HEARN: More problems happened to the
24 D-rings. It was -- the D-ring is a pretty simple
25 device. It's just really a D-ring and a collar holding

1 it down. It's welded. Welding it down in position.
2 Dirt and debris gets in between the collar and it can
3 cause rust or corrosion that would freeze that D-ring
4 down in position. The collar typically will wear out
5 in time from cargo driving over top of it, there would
6 be that damage. And it would get thinner.
7 And then the D-rings if they were heavily
8 used, especially in a position where they cargo was
9 always on that stow and that was one of the few D-rings
10 in the location, they would -- I have seen them thin
11 out to have to be replaced, but that would be a visual
12 inspection. And you would see -- if the cargo had
13 caused damage to the collar, you would normally see it.
14 And that was a pretty easy repair for the ship. The --
15 if you had the opportunity with cargo and work to go
16 out there, it's still hot work. We have to go through
17 the process, but cut the collar off, put a new D-ring
18 down or add another D-ring to the location and cut it
19 off when you could.
20 MR. MILLAR: And for the Puerto Rico Run,
21 you describe differences between the chassis and the
22 trailer. Were there any trailers like on the west
23 coast in the Puerto Rico Trade?
24 CAPT. HEARN: No, I never saw that. That
25 conversion with a tote-type trailer with the fittings

in the front end, there may have been one or two, but I don't recall seeing them.

MR. MILLAR: So the Puerto Rico was basically on chassis and do you know if the chassis were fitted with the capabilities to lash the forward end?

CAPT. HEARN: No.

MR. MILLAR: Okay. Thank you. Mike, I'll turn it back to you if you have some more questions.

INVESTIGATOR KUCHARSKI: Okay. Captain Hearn, so on the Puerto Rican Run the trailers, over-the-road-type trailers for securement of them, where did they secure at the forward end, if they did?

CAPT. HEARN: You would have to put extra lashings on the roloc box. That was all you really had. There was -- there is nothing up there to lash to. If you did, it would be rare, maybe a flatbed or a different type of it, but your typical van that you see over the highway would not have any lashing position.

INVESTIGATOR KUCHARSKI: So then this is Mike Kucharski continuing. So then the over-the-road vans, I believe you stated, they were, instead of lashing to the van itself, lashed to the roloc box?

CAPT. HEARN: Yes, right. You are really solely relying on the king pin in the van that is

1 locked into that roloc box to keep it in position.
2 INVESTIGATOR KUCHARSKI: We have seen
3 pictures taken of the cargo on El Yunque where the
4 trailers are very close together.
5 CAPT. HEARN: Um-hum.
6 INVESTIGATOR KUCHARSKI: Did that occur,
7 that same closeness occur, on the El Faro?
8 CAPT. HEARN: That was a common feature for
9 all the ships and that cargo system.
10 INVESTIGATOR KUCHARSKI: Was there any
11 problem with them being so close together getting
12 proper leads for the lashings?
13 CAPT. HEARN: Always. It could -- that's
14 why the positioning of the D-rings was important to us.
15 You were looking for the best lead you could get,
16 usually a 30 to -- around a 30 degree angle. And the
17 cargo manual has that and a description of it.
18 But the other problem with the lead would be
19 if it's too long or too far away from a D-ring. You
20 might get a chain on it, but it's -- it should be very
21 close to the end of the D-ring. So if you have a
22 different size trailer that's in that button because
23 that front end is a critical lashing on the roloc box
24 into the deck button. The rear end if it wasn't near
25 D-rings, you might have to take a long lead to a D-

ring.

INVESTIGATOR KUCHARSKI: And why is it you say that the long leads are problematic?

CAPT. HEARN: Well, you really don't want that trailer to lean away and you don't want it to slide. And the long leads, while they would help it, it would keep it from sliding too much, but they wouldn't help it at all from leaning away from it and it wouldn't -- it could even trip the trailer. But the trailer -- it wouldn't help it, you know, from falling over or working into another trailer nearby.

INVESTIGATOR KUCHARSKI: Have you had experience where the trailer worked into another trailer?

CAPT. HEARN: I have seen everything that can happen just about happen to that cargo, because I was on the Alaska Run and we had everything happen. I mean, buttons ripped out. I mean, I could describe it, but I have seen almost everything happen including go overboard.

INVESTIGATOR KUCHARSKI: Did you see any of this occur on the Puerto Rican Run?

CAPT. HEARN: No.

INVESTIGATOR KUCHARSKI: Were you in rough weather on the Puerto Rican Run?

1 CAPT. HEARN: Not really. Not what I would
2 consider rough compared to what I had been with in the
3 Alaska Trade. I had some choppy weather and some heavy
4 swell that I would have to deal with, usually in the
5 wintertime. And typically more down near Puerto Rico
6 and I would just adjust the course to take that edge
7 off and let the ship ride better.
8 So if I was in weather, it was manageable
9 and it was plenty of that, especially through the
10 winter season where you might angle the ship to take
11 the weather and then the ship would ride very well and
12 the cargo would manage very well. So if I did have
13 weather and it was -- I would say in the winter that
14 could happen every third week where I would be, you
15 know, managing the heading of the ship to give a better
16 ride to the ship for -- you know, to protect personnel
17 and the cargo. And it might not be as efficient as you
18 would like it to be, but it was safer for everything.
19 INVESTIGATOR KUCHARSKI: Okay. And I have
20 quite a few questions on ship handling and stability --
21 CAPT. HEARN: Okay.
22 INVESTIGATOR KUCHARSKI: -- relating to
23 weather, which I'll come back to. And I would sort of
24 like to limit them to the securement of cargo or where
25 cargo breaks loose.

1 CAPT. HEARN: All right.
2 INVESTIGATOR KUCHARSKI: So on the Puerto
3 Rican Run, you didn't notice any cargo breaking loose
4 on the ships that you were on?
5 CAPT. HEARN: I never had a cargo problem on
6 the Puerto Rican Run with cargo breaking loose.
7 INVESTIGATOR KUCHARSKI: Did you ever have
8 wave order into the second deck on the Puerto Rican
9 Run?
10 CAPT. HEARN: No.
11 INVESTIGATOR KUCHARSKI: Did you have any
12 wave order enter the deck after the vessels were
13 converted?
14 CAPT. HEARN: To the El Faro from the
15 Northern Lights to that type? I had a little bit of a
16 sea on a voyage across the Atlantic, you know, where we
17 had some water on the second deck. But on the Puerto
18 Rico Run, I -- if you managed the ship for the weather,
19 you typically didn't have to worry too much about
20 taking seas down there. There might be some spray on a
21 winter voyage, but I wasn't -- never took a green sea
22 down there. I have taken green sea, so I know what
23 that is like, but not down there.
24 INVESTIGATOR KUCHARSKI: So your experience
25 in green seas, now, let's go back to your statement

1 that you have seen green seas, but not on the Puerto
2 Rican Run.
3 CAPT. HEARN: Right.
4 INVESTIGATOR KUCHARSKI: Could you describe
5 your experience when green seas came on-board the
6 second deck?
7 CAPT. HEARN: Depending on the situation and
8 even if the ship has the best heading it can in rough
9 weather, you can fill up those openings with a wave and
10 it will completely engulf the second deck. I mean,
11 that water will come into the second deck until the
12 ship rolls away from it.
13 So you could have, at the location, water
14 over your head. But it would quickly move out through
15 the second deck and you would have water up to a foot,
16 two feet deep across the deck in that area, especially
17 mid-body and especially where that major hull opening
18 was at the second deck, mid-body, you can take a lot of
19 sea in there and it would roll through.
20 INVESTIGATOR KUCHARSKI: And the major hull
21 opening is what?
22 CAPT. HEARN: That's where the trailer --
23 that mid ramp opening, the mid-ship ramp opening on the
24 starboard side. There were breakwaters there, so you
25 wouldn't take a hard sea through there, but it would

1 still bring water in. And then the hull openings
2 forward could take water also. And that's usually --
3 and you would get sea and spray and then it would have
4 to drain off the ship.
5 INVESTIGATOR KUCHARSKI: And what kind of an
6 effect did taking the seas have on the cargo or the
7 securement, if you took that on the second deck?
8 CAPT. HEARN: The biggest problem you would
9 have, if you had seas on the deck, you would worry
10 about the cargo sliding. That's why those lashing
11 leads are important, you don't want the cargo to start
12 moving around. If you had vehicles down there, of
13 course, you could damage the vehicle itself with the
14 sea. And you have personnel working out there also.
15 And the other issue, of course, is
16 watertight integrity. So you don't want water on the
17 second deck if you can avoid it, but it's a low-
18 freeboard on that to that second deck. So you get --
19 INVESTIGATOR KUCHARSKI: A low-freeboard,
20 you are talking about -- we were talking about the
21 Alaska Trade?
22 CAPT. HEARN: Well, I'm talking about any
23 time. That ship is -- actually, also the Puerto Rico
24 Trade is still low-freeboard. It's the same ship.
25 INVESTIGATOR KUCHARSKI: Okay.

1 CAPT. HEARN: The only other issue with
2 water on that deck, of course, is there is electricity
3 out there. You have reefer cargo and that's a concern
4 for your crew, your personnel.
5 INVESTIGATOR KUCHARSKI: You mentioned
6 earlier, this is Mike Kucharski continuing, that the
7 deck crew had to go out and check the lashings that the
8 longshoremen had put on?
9 CAPT. HEARN: Yes.
10 INVESTIGATOR KUCHARSKI: And the tightness
11 of them?
12 CAPT. HEARN: Yes.
13 INVESTIGATOR KUCHARSKI: Did you find that
14 that was something that they had to do quite a bit of
15 tightening after the ship left port on the Puerto Rican
16 Run --
17 CAPT. HEARN: No.
18 INVESTIGATOR KUCHARSKI: -- only?
19 CAPT. HEARN: Typically it would -- in fact,
20 they may not -- might not have even turned them to
21 check the cargo. In the Alaska Run they, the crew,
22 would know to turn to and check the cargo, but on the
23 Puerto Rico Run, the chief mate would tell them to,
24 because the weather was fairly reliable. The voyage
25 was fairly reliable. And they would -- you know, if it

1 was a concern, then it would be up to the chief mate.
2 And I would discuss it with him, because I would be
3 watching that weather also to make sure he knew to get
4 them out there and start checking cargo.
5 So they would change then the work routine
6 from maintenance to cargo securement.
7 INVESTIGATOR KUCHARSKI: So would you -- I
8 guess I am a little bit unclear. So on the Puerto
9 Rican Run you didn't have any -- find instances of
10 where the cargo or the secure -- the lashings were
11 loose after you left port that they had to address?
12 CAPT. HEARN: It would depend on how you
13 were looking at that. There was -- the cargo wasn't
14 always well-secured because -- for rough weather,
15 because they weren't used to rough weather on that run.
16 So you didn't -- you couldn't rely on that with the
17 longshoremen in port, they just didn't -- they weren't
18 -- it wasn't a typical problem.
19 So if you were looking for rough weather and
20 I had some rough weather voyages or voyages where we
21 anticipated, like for example, Hurricane Sandy. I was
22 on the ship when that -- we went through Hurricane
23 Sandy. We may engage rough weather on the voyage. So
24 I would definitely go out there and take a look at the
25 cargo itself and if there was any concerns, we would

1 start addressing them with the crew.

2 And you would try to get to as much as you

3 could with the longshoreman, but because they didn't

4 have the -- quite the same experience as like the west

5 coast longshoremen that knew that that ship was going

6 to Alaska and they had a lot of training to make sure

7 that that ship was ready for it.

8 The difference with the Jacksonville guys

9 where they were fairly good to work with, but they

10 didn't know that kind of an issue. So they may take a

11 lead in the wrong direction, only because it's what

12 they have always done. And it's very difficult to

13 switch gears with 30 or 40 people and train them for a

14 voyage, a voyage-specific issue. So you would -- it's

15 easier to do it with your crew and change a few

16 lashings.

17 And like I said, it wasn't -- with the

18 ship's crew there, they could usually handle quite a

19 bit of the work before you got into rough weather or,

20 of course, you don't get yourself in rough weather

21 until you are ready for it. That's a limitation of

22 your voyage and your crew that you have to deal with.

23 So you have to deal with that specifically as you are

24 comparing.

25 But you are going back to what they could

do, they would do a fairly good job, especially the big issue with the Jacksonville was you have containerized cargo. And that's a very heavy lever on the ship. It's a lot of weight up there. And that's where a lot of the focus was to make sure that that part of the ship was prepared for the voyage. So the rest of it, the crew could augment, you know, the shoreside work and get the work done.

INVESTIGATOR KUCHARSKI: Let me stop there to see if there are any questions in the room? On the telephone, please?

MR. [redacted] [redacted] [redacted] Coast Guard.

INVESTIGATOR KUCHARSKI: Hi, [redacted] Go ahead.

MR. [redacted] Yes, Captain Hearn, when you said you would go down and take a look at the cargo, are you talking about prior to departure from a port, you make a walk-around through the cargo spaces to make sure that that cargo was secured to your satisfaction in anticipation of weather or are you talking about once you got out to sea, you would take another round turn to make sure you were prepared for a voyage where you anticipated weather?

CAPT. HEARN: It would depend. Normally the chief mates that I worked with on that run I had a good

1 relationship with them and they would contact me if
2 they were concerned about any cargo issues and I would
3 go down and look at it together with them, because if
4 the cargo was routine work for us, I didn't have to go
5 down there and take a look. But because I was
6 interested, I could go at any time.
7 I may go in port, but difficulties in port
8 you only have so many hours. You are spending time
9 before you get to port, after you leave port. I tried
10 to stay focused on safe navigation of the ship and that
11 chief mate is my best officer watching that cargo
12 arrangement, so I would rely on him very heavily to
13 make sure that he had a good feeling for the cargo. He
14 could contact me and they did contact me if they had
15 trouble in port.
16 I would typically make a round that first
17 day at sea and sometimes at night I would walk out and
18 take a look at the cargo. I didn't really care. I was
19 very familiar with the ships. I could do it pretty
20 quickly.
21 MR. [redacted] Okay.
22 CAPT. HEARN: It would be like a walk.
23 MR. [redacted] Thank you, sir. We will
24 circle back later in Captain Kucharski's topics on
25 human factors related to that, but I thank you very

1 much for your answer, sir.
2 CAPT. HEARN: You're welcome.
3 INVESTIGATOR KUCHARSKI: On the phone,
4 anyone else?
5 INVESTIGATOR STOLZENBERG: Yes, Captain.
6 This is Eric Stolzenberg from NTSB Protection Group.
7 I'm just curious if you could see or give us a feel for
8 the decrease in freeboard between the Alaska and the
9 Puerto Rican Runs regarding taking water onto the
10 second deck? I guess was the decrease noticeable?
11 CAPT. HEARN: Well, we are talking about
12 weather-specific. On the Alaska Run, well, you -- the
13 Alaska Run the ships were lighter, so you had a few
14 more feet of freeboard. We never were as heavily
15 loaded. And of course, when you left Puerto Rico, you
16 were lighter. So it depended on the loading condition
17 and you are only talking a few feet, but it can make a
18 difference.
19 INVESTIGATOR STOLZENBERG: Okay. Thank you.
20 CAPT. HEARN: You know what I mean.
21 INVESTIGATOR STOLZENBERG: A second question
22 along this same, when you experience water on the
23 second deck, the green water you described earlier on
24 the Alaska Run, did any of that water ever enter the
25 holds?

1 CAPT. HEARN: I have --
2 INVESTIGATOR STOLZENBERG: In your
3 experience.
4 CAPT. HEARN: Yes. I had one experience
5 with a lot of water in the cargo hold.
6 INVESTIGATOR STOLZENBERG: You can describe
7 that experience in the hold?
8 CAPT. HEARN: Yes. I was chief mate of the
9 Westward Venture and we had about a 5 degree list that
10 I noticed when I was on watch, at around 4:00 or 5:00
11 in the morning. At 7:00 in the morning, I talked to
12 the chief engineer about it and had the bowsten
13 (phonetic) -- and checked the holds and we found on the
14 starboard side about 8 foot of water in the hold. That
15 water had gone through to a number -- from 3 to 2A and
16 all the way up to No. 2 hold.
17 INVESTIGATOR STOLZENBERG: So it was in
18 several holds?
19 CAPT. HEARN: Yes, that's correct. It went
20 through the watertight doors.
21 INVESTIGATOR STOLZENBERG: And do you know
22 the ingress source?
23 CAPT. HEARN: There was two arguments on the
24 ship about what happened. The -- whether it was the
25 hatch on the starboard side No. 3 hold that was

1 opening. It is a manhole opening that was left open,
2 because it was a rough weather voyage. And the other
3 possibility that was argued at that time was the bilge
4 system had been left unsecured and had leaked back in,
5 because they have been pumping bilges from all the
6 water in the holds. Rainwater, snow and ice, things
7 like that got in there and we would pump it out. Keep
8 the holds clean. So it was quite an experience.
9 INVESTIGATOR STOLZENBERG: So potentially as
10 far as the two ingress sources, the manhole, do you
11 recall what frame that was at about?
12 CAPT. HEARN: It was just aft of the mid-
13 body opening that I talked about earlier.
14 INVESTIGATOR STOLZENBERG: Okay. And was it
15 a raised manhole cover? Was it a soft patch?
16 CAPT. HEARN: It's a raised manhole cover
17 that was about 18 -- my recollection is about 18 inches
18 above the deck coaming.
19 INVESTIGATOR STOLZENBERG: Okay. Captain,
20 in that case, was it thought to be a gasket or was it
21 thought to be left open potentially?
22 CAPT. HEARN: That much water, it would have
23 had to have been opened, but the bowsten said it was
24 secured.
25 INVESTIGATOR STOLZENBERG: Okay.

1 CAPT. HEARN: But that's -- you know, you
2 are going by what you know and that's what I know from
3 that experience.
4 INVESTIGATOR STOLZENBERG: Just trying to
5 get a feel --
6 CAPT. HEARN: Of course.
7 INVESTIGATOR STOLZENBERG: -- for what you
8 experienced.
9 And in the second case, the bilge system
10 was-- if you could elaborate a little more? Was that
11 because of check valves that may not have held or is it
12 because that was left lined up in some fashion?
13 CAPT. HEARN: I think the line up was what
14 was the first suspect. There should have been a check
15 valve. You would think there would be a check valve,
16 but it may not have worked properly. But it could have
17 been that -- and the sea chest was open where it should
18 have been secured. So they could have just shut off
19 the pump.
20 But I think that the -- probably the suspect
21 was the bowsten didn't secure that hatch or someone had
22 left that hatch open for that much water, because it
23 was quite a bit of water in that hold.
24 INVESTIGATOR STOLZENBERG: And so at that
25 time the vessel was experiencing heavy weather, I

gather?

CAPT. HEARN: Yes, it was.

INVESTIGATOR STOLZENBERG: And so when you described 1 to 2 feet, that could be present in the second deck until it is drained off? Would that have been the condition, to your recollection?

CAPT. HEARN: It could be, yes. Those seas were -- would be coming in. You don't even feel them up top.

INVESTIGATOR STOLZENBERG: Okay. Were there ever any watertight scuttle or watertight door indicators on the vessel that would have alerted you to that on the bridge?

PARTICIPANT: I have all this instability. I like to keep on the cargo end.

INVESTIGATOR KUCHARSKI: Excuse me, Eric, there are a whole bunch of questions along the stability end which go right into these. Okay? I would like to keep it in the cargo end. Do you have any questions on the cargo securement?

INVESTIGATOR STOLZENBERG: Nope. Just along the lines of this particular incident and, you know, the only other question I had to follow-up with was how they pumped it out.

INVESTIGATOR KUCHARSKI: Okay.

PARTICIPANT: So just refer him to a particular incident. I would suggest go ahead and let him pursue that.

INVESTIGATOR KUCHARSKI: Okay. Yeah, finish up on that particular incident and then we will bring it back into the cargo security.

INVESTIGATOR STOLZENBERG: Understood. Thank you.

INVESTIGATOR KUCHARSKI: Yes.

INVESTIGATOR STOLZENBERG: Captain, this is Eric again. Can you describe how you pumped that water out of those holds, to your recollection?

CAPT. HEARN: Yeah. I remember that pretty well. Actually, it was I had to go down into the hold with the first engineer. We were both young and in good shape in those days. And it was rough, so the water was moving back and forth across the hold and it had cleaned the hold of any dust, debris, rust, paint chip and it had all gone into the rose box.

So we had to go underwater and muck the rose boxes out by hand to clear the bell mouth, so we could pump the bilges, because we couldn't get the water out of the hold. And then we --

INVESTIGATOR STOLZENBERG: So --

CAPT. HEARN: It took a while. It took all

1 day.

2 INVESTIGATOR STOLZENBERG: When you say all

3 day, 8 to 12 hours, 16 hours, 24 hours?

4 CAPT. HEARN: I would say 8 to 12 hours at

5 least before it got to a manageable level and we felt

6 more comfortable.

7 INVESTIGATOR STOLZENBERG: Okay. And was

8 the (inaudible) a loaded condition at that time or in a

9 (inaudible) condition?

10 CAPT. HEARN: I can't remember if we were

11 northbound or southbound on that voyage. I believe it

12 was southbound, so she was lighter, even lighter than

13 she would be. That ship could get really light on the

14 Alaska Run coming south. I know it was cold.

15 INVESTIGATOR STOLZENBERG: All right.

16 CAPT. HEARN: I had a coat on in the water.

17 That's all I remember.

18 INVESTIGATOR STOLZENBERG: Okay. Do you

19 know how many -- was there -- do you know how many

20 times you had to go in and clean out those rose boxes?

21 Was it once? Was it several times?

22 CAPT. HEARN: It was -- that was part of --

23 it took hours to get the water out, the rose boxes

24 clear and then we got to the other one. I would say

25 there was about 2 foot of debris, small paint chips and

any little thing that got past the gratings and went down in there and jammed it up.

INVESTIGATOR STOLZENBERG: And you used the bilge system along the installed bilge system to pump?

CAPT. HEARN: That's correct.

INVESTIGATOR STOLZENBERG: Okay. That's all. Thank you, Mike, for the time. And thank you, Captain.

CAPT. HEARN: Yes, sir.

INVESTIGATOR KUCHARSKI: Okay. Sure. Tom Roth-RoffY? Yes, Tom, sure.

INVESTIGATOR ROTH-ROFFY: Tom Roth-Roffy. Just a couple of follow-up questions. You mentioned that the first indication of this problem was in 5 degree list.

CAPT. HEARN: Yes.

INVESTIGATOR ROTH-ROFFY: Were there any bilge alarms installed in the cargo holds?

CAPT. HEARN: At that time there was not, no.

INVESTIGATOR ROTH-ROFFY: And subsequently were bilge alarms installed?

CAPT. HEARN: They were, but they were put on the ship when she went to lay-up. And so they could keep an eye on the ship when she was laid-up without

1 personnel on-board. So we had them for that.
2 INVESTIGATOR ROTH-ROFFY: Okay. And you are
3 again referring to the Westward Venture. Is that
4 correct?
5 CAPT. HEARN: That was the Westward Venture,
6 but all the ships had it that I remember. At least
7 those three of that class, because they were all laid-
8 up on the Alaska Run.
9 INVESTIGATOR ROTH-ROFFY: So during the lay-
10 up period they installed additional bilge alarms or no?
11 CAPT. HEARN: Yes.
12 INVESTIGATOR ROTH-ROFFY: Originally, did
13 they have -- didn't they have bilge alarms fitted in
14 the cargo holds at all at any time before they
15 installed them?
16 CAPT. HEARN: They did, but they weren't
17 always reliable, because they would get jammed up, so
18 you couldn't count on them. But then we did have
19 reliable bilge alarm systems later on. They were more
20 mechanical with a float and we ended up removing,
21 because they would jam up in the pipe. And sometimes
22 you couldn't -- you didn't know that they were. You
23 would -- we would have water and you didn't know it.
24 And we would get a lot of water in those
25 holds just from the snow that would melt and the

1 trailers would pick up ice because Alaska -- they would
2 pick up trailers under the carriage and on top of the
3 carriage. And when they would come into the cargo
4 holds it would all melt down and carry a lot of dirt
5 with it. So you had that debris and dirt all the time
6 in those cargo holds. So that was another -- one of
7 the limitations of the system that you had to deal
8 with.
9 But it was part of the job to keep it clean.
10 And you would -- but you would get water down there and
11 you might not know it. So we went to other systems
12 later on.
13 INVESTIGATOR ROTH-ROFFY: You mentioned that
14 when -- in this instance you pumped out the 8 feet of
15 water from the hold, so using the --
16 CAPT. HEARN: Bilge system.
17 INVESTIGATOR ROTH-ROFFY: -- fixed bilge
18 system --
19 CAPT. HEARN: Yeah.
20 INVESTIGATOR ROTH-ROFFY: -- the pumping
21 location or the pump location. Is that --
22 CAPT. HEARN: That was in the engine room.
23 INVESTIGATOR ROTH-ROFFY: Okay.
24 CAPT. HEARN: In the bilge system.
25 INVESTIGATOR ROTH-ROFFY: And I would just

1 like to go back to the lashing issue. You mentioned
2 that sometimes you would -- if you anticipated weather,
3 you could request additional lashings.
4 CAPT. HEARN: Yes.
5 INVESTIGATOR ROTH-ROFFY: Do you recall if
6 you ever had to do that while you were on a Puerto
7 Rican Run?
8 CAPT. HEARN: Yes.
9 INVESTIGATOR ROTH-ROFFY: And --
10 CAPT. HEARN: Hurricane Sandy.
11 INVESTIGATOR ROTH-ROFFY: What was your --
12 kind of your standards for when you felt you had to
13 request additional lashings? Was it predicted sea
14 height or winds or how did you know when to request
15 that?
16 CAPT. HEARN: You know, the very first
17 indication would be any kind of rough weather or the
18 possibility of rough weather. You could say sea
19 height, but you don't know what you are going to get
20 into with it, depending on the conditions, because it
21 changes in a day or two.
22 So if there has been a consistent heavy
23 swell, it might be a problem and you don't have a storm
24 at all, you just have a swell out there that you have
25 to deal with. We learned that in Puerto Rico. And if

1 you did try to manage it with the ship's heading, which
2 was -- on the Puerto Rico Run you had normally the
3 opportunity to adjust the heading of the ship, so you
4 could ride better and you didn't have to rely on the
5 cargo securement system completely, because that's --
6 also on personnel.
7 But if you knew that there was a storm out
8 there or you knew that you had typical heavy swell,
9 that would be an indication that, okay, let's do with a
10 few extra lashings or make sure that you do a good job
11 with what you can get done. Then I would talk to the
12 chief mates about that. They would be aware that we
13 had -- like a hurricane was in the area and could
14 possibly catch us or we could feel some effect from it,
15 because you could be pretty far and still have the
16 swell from the hurricane system or storm system. So
17 you would be -- try to be prepared for that as well as
18 possible.
19 INVESTIGATOR ROTH-ROFFY: Can you recall
20 during the time you were on that Puerto Rican Run, how
21 many times you had to add extra lashings in
22 anticipation of any weather?
23 CAPT. HEARN: Once a year, maybe twice.
24 INVESTIGATOR ROTH-ROFFY: And in those
25 instances, was it done in advance? You say you would

have to request that. Was there ever any instance where the stevet (phonetic) oars, the longshoremen had anticipated the weather and had done it without you asking for it?

CAPT. HEARN: I don't remember anything like that.

INVESTIGATOR ROTH-ROFFY: Okay.

CAPT. HEARN: No. They would rely on us to make the request. There could have been incidents, you know, further back with some of the other managers that I worked with that were more experienced on the SeaStar Run, but they weren't there when I left, so I don't recall that.

INVESTIGATOR ROTH-ROFFY: And if there was an instance where you said like once a year you had to add extra lashings, would it be throughout the cargo holds? Everything would receive it or it would be certain areas that you --

CAPT. HEARN: We have -- the focus with the cargo lashing on the Puerto Rico Run, the containerized operation was critical and the heavy lever, but that was a pretty standard lashing arrangement.

Extra lashings would go on the case-by-case, piece-by-piece cargo down on the second deck, because as you go further down in the ship, the cargo is more

1 stable. The motion and the acceleration forces are
2 less. So that second deck would receive the most, so
3 that's where you would put your most -- your strongest
4 attention to make sure you could get any extra piece of
5 lashing. So it might only be two or three pieces of
6 cargo and that would be a case where you could get it
7 done. They would do that for you or you would send the
8 crew out that night to fix it. It could be done before
9 you got the sea buoy, which is only a two-hour run.
10 INVESTIGATOR ROTH-ROFFY: I don't -- Mike
11 intended to cover this later and I apologize if I'm
12 jumping ahead, but what about diversion routes? Did --
13 in anticipation of poor weather, did you ever divert
14 the vessel to a different route?
15 CAPT. HEARN: Yes, many times actually.
16 INVESTIGATOR ROTH-ROFFY: And did you have
17 any criteria for when you would, you know, divert the
18 vessel to avoid weather?
19 CAPT. HEARN: Yes. The first thing you look
20 at is the weather system and what is -- what you are
21 going to be dealing with there and your voyage plan.
22 You know, where you -- what your destination is and how
23 you could manage it, you know, to the best advantage to
24 keep the ship stable as possible and get an effective
25 route. So it -- northbound, southbound, you know, what

1 was your -- what your option is. It's probably -- it
2 would be surprising how many options you did have to
3 weather route around, even those small locations.
4 And I got a million miles of voyage runs,
5 you know, between Alaska and Puerto Rico and short runs
6 like that, but you still will weather route, not
7 because you are avoiding the storm, but you are taking
8 the seas in the best direction possible to give the
9 ship the best and safest position and ride to complete
10 the voyage.
11 And if you are missing -- if you are trying
12 to avoid a hurricane, for example, that's a specific
13 target that is moving like you are and so you pick a
14 route that will try to get around that and give you --
15 the number one rule for me around a big system is to
16 keep your maneuverability of your ship as long as
17 possible to get away from it, because you want to avoid
18 getting close.
19 So you try to stay in a position where you
20 are far, because once you get close, you are starting
21 to deal with seas. They can slow down the ship. You
22 always have to adjust your heading to deal with that
23 swell, because it's back to, you know, your limitations
24 of your ship and your cargo and what you have got
25 there. So you want to try to avoid that and keep --

1 you are better off to keep speed and keep moving in a
2 clear area of the weather.
3 INVESTIGATOR ROTH-ROFFY: Okay. Mike,
4 that's all I have.
5 INVESTIGATOR KUCHARSKI: Yes.
6 INVESTIGATOR FURUKAWA: Mike?
7 INVESTIGATOR KUCHARSKI: Sorry.
8 INVESTIGATOR FURUKAWA: Jon Furukawa.
9 Getting back to the slum on the Westward Venture that
10 5-year list voyage.
11 CAPT. HEARN: Yes, sir.
12 INVESTIGATOR FURUKAWA: You said that you
13 considered the water ingress from the hatch and/or the
14 bilge system sea chest. Did you also consider the
15 cargo vents?
16 CAPT. HEARN: Yes, it wasn't the cargo
17 vents. It was a lot -- a huge volume. There was
18 opportunity where some spray got to the cargo vents,
19 but it was pretty rare to bring a lot of water in
20 through those systems, so it would be more spray and it
21 would take -- that was -- the volume was way too far
22 for that.
23 INVESTIGATOR FURUKAWA: Okay. Thank you.
24 That's all I have.
25 CAPT. HEARN: Yes, sir.

1 INVESTIGATOR KUCHARSKI: On the telephone,
2 questions on cargo securing, if we can?
3 MR. MILLAR: This is Mike Millar with ABS.
4 INVESTIGATOR KUCHARSKI: Go ahead, Mike.
5 MR. MILLAR: Yes, sir. Captain, on the
6 containers that were carried on deck in the Puerto Rico
7 Run, as -- did you have any experience of any of the
8 lashings coming loose or loss of cargo during any of
9 your voyages?
10 CAPT. HEARN: No, sir.
11 MR. MILLAR: Was there any loss of -- you
12 didn't really have any containers on the Alaska Run
13 though then, correct?
14 CAPT. HEARN: That's correct. That was all
15 trailer cargo.
16 MR. MILLAR: Were any trailers lost on the
17 Alaska Run?
18 CAPT. HEARN: Yes, plenty. I had 50 on one
19 voyage, that one voyage I mentioned where we started
20 improving the cargo system. There were eight of them
21 that I remember went over the side. And the rest of
22 them were on-board on their sides. And then we had
23 other voyages where we had cargo damage. Trailers on
24 their sides.
25 MR. MILLAR: Where that cargo was -- where

1 that cargo was lost, was the root cause analysis
2 anything different than the lashings not being
3 adequate?
4 CAPT. HEARN: It all depended. We -- one of
5 the -- I would have to say is it's almost case-by-case,
6 too. For one thing, certainly the higher in the ship
7 on deck, the more difficult your acceleration forces
8 are greater there. The second thing, the lashing
9 failure was more typically the roloc box would come
10 loose and didn't do it's job. It was not secured, that
11 pin would be free or the button would let go.
12 And once that is gone, the trailer was very
13 unstable and would go. The chains at the rear of the
14 trailer and like in the Alaska Run at the front, could
15 do the job alone, but it's -- they are not as strong as
16 that roloc box. I don't know if that helps. I mean,
17 it can go into a long discussion on lashings and
18 failures there, but that's maybe a fast answer for you.
19 MR. MILLAR: Well, were the failures during
20 the heavy weather routes?
21 CAPT. HEARN: Yes.
22 MR. MILLAR: The -- okay. So primarily
23 during the -- they were during heavy weather routes.
24 CAPT. HEARN: The only time I saw a cargo
25 failure in good weather was the trailer was usually

weak, we didn't inspect the trailers. They belonged to another vendor and the trailer could let go itself. The body of the trailer would fracture, the back would break. I have seen that happen even just driving on the ramp where it is flexing. And depending on how heavily loaded that trailer might be, the trailer would let go. I have seen the walls of the trailers go open up also because of the ship rolling. Where the cargo is good, but the wall lets go because the cargo shifts inside the trailer and that wall is not built to take any weight and it would go right through it.

MR. MILLAR: I guess the stowage wasn't so good.

CAPT. HEARN: Well, everything is palletized now, so it's a block. It's a heavy block and if it's a reefer trailer, especially, but it would be books. It could be machinery. It could be pretty heavy. And it would go right through the side. Not common, but I have seen it. So that would be your other failures that would happen to cargo equipment.

These are not -- the trailers are not containers.

MR. MILLAR: Right.

CAPT. HEARN: Right. You know what I mean by that? They are different.

1 MR. MILLAR: Yes. Thank you.
2 INVESTIGATOR KUCHARSKI: Carrie? Carrie
3 Bell?
4 INVESTIGATOR BELL: This is Carrie Bell,
5 NTSB. I just have one question. You mentioned that
6 it's only about once a year that you would request
7 extra lashings.
8 CAPT. HEARN: Yes.
9 INVESTIGATOR BELL: Would that ever trigger
10 interest from the company side?
11 CAPT. HEARN: I would let them know first.
12 INVESTIGATOR BELL: Okay. And so is there
13 communication between you and them regarding that?
14 CAPT. HEARN: Yes.
15 INVESTIGATOR BELL: You know, obviously,
16 there is weather coming or something.
17 CAPT. HEARN: Yes. I would let the
18 operations manager know or the chief mate would talk to
19 them about it when they got -- they would have a
20 conference at the beginning of cargo work and they
21 would get going on it.
22 INVESTIGATOR BELL: And what would that
23 entail? Was there anything that would --
24 CAPT. HEARN: Just that they were going to
25 request extra lashings from the longshoremen that they

1 were working with directly on deck. And they would get
2 approval from the company, so if there is any conflict,
3 because it did happen, they didn't want to do the extra
4 work, they weren't prepared for it or they just didn't
5 want to work that hard, because it's hard, it's painful
6 even, there would be a little bit of a disagreement and
7 then we would have to resolve it somehow and get back
8 to work.
9 So that's just typical of that kind of
10 industry where you are out there. And you do have some
11 small conflicts like that that you would get through.
12 INVESTIGATOR BELL: Okay. Thank you.
13 CAPT. HEARN: Yes, ma'am.
14 INVESTIGATOR KUCHARSKI: Mike Kucharski.
15 Just a quick follow-on. You said the operations
16 manager of the company, who would that have been?
17 CAPT. HEARN: Well, when I left it was Don
18 Matthews that we would deal with most directly. Lee
19 Peterson I would talk to about it possibly, but
20 typically Don Matthews would coordinate that for us.
21 INVESTIGATOR KUCHARSKI: Thank you. Let me
22 stop there. On the phone, I think there was someone
23 else that wanted to ask some questions?
24 MR. [redacted] Yes, Mike. [redacted] [redacted]
25 Coast Guard. Captain Hearn, looking specifically at

1 that flooding incident on the Alaskan Trade where the
2 ship achieved a list and you had to pump out the holds.
3 Do you recall if you had a permanent chief mate on
4 there?
5 CAPT. HEARN: I was the permanent chief
6 mate.
7 MR. [redacted] Okay. And what would be the
8 difference? Would it be important in a situation like
9 that that you had somebody that had been serving as
10 chief mate for a while? Could you talk about that,
11 about resolving that flooding incident?
12 CAPT. HEARN: Yes. I was -- that was within
13 my first year, I think, with the company and that run.
14 And I had been on the tankers previous to that, so I
15 didn't have a lot of experience with this kind of cargo
16 work. And I went to the company as a chief mate, not
17 as a second mate or third mate, so I hadn't been
18 brought up within the cargo system.
19 But I had been working with the Navy on
20 other types of cargo systems, so I was, believe it or
21 not, trained to think about innovation. So I was
22 looking for opportunities to use it again. I just did
23 like that kind of -- you know, a part of -- I thought
24 it was expected of me to be quite honest.
25 We learned pretty quickly about how to

modify the cargo system, that was also the period where we lost those 50 trailers and had damage, too.

MR. [redacted] Captain Hearn, we will take more about that in a minute, but I was talking specifically about the flooding incident that occurred.

CAPT. HEARN: Right.

MR. [redacted] Your knowledge of the ship and familiarity with the bilge piping system and so forth.

CAPT. HEARN: Yes. Well, what would be your question? I thought I was answering your question. Sorry about that.

MR. [redacted] I'm not looking for generalities. During that flooding incident, you were serving as chief mate. And you had been on the ship a while. What I was getting at was how important was your familiarity with the bilge pumping system and the unique characteristics of that particular ship?

CAPT. HEARN: It's very important. That's what I was trying to describe. I was not that familiar with it at the time, but I was learning. And I can't remember where in my period of learning with the ship and history with the ship, I was at that -- when that incident occurred. But it was one of my best learning experiences with it.

MR. [redacted] All right. Thank you, sir.

1 CAPT. HEARN: I hope that answers a little
2 bit of that. Sorry.
3 MR. [redacted] Thank you very much.
4 CAPT. HEARN: You're welcome.
5 INVESTIGATOR KUCHARSKI: On the telephone,
6 is there anyone else that has questions before we move
7 on?
8 INVESTIGATOR STOLZENBERG: Eric Stolzenberg,
9 NTSB. Captain, you described the -- when a trailer
10 fell off as being in the higher decks. Just if you
11 could clarify a little more. Is that the weather deck
12 or is it the second deck? Where were they primarily --
13 CAPT. HEARN: On the Puerto Rico Run, the
14 second deck is the highest trailer deck, which is below
15 the --
16 INVESTIGATOR STOLZENBERG: And on the Alaska
17 Run when you lost the 50 or the eight, I think you
18 said, what decks primarily were you losing them?
19 CAPT. HEARN: We lost eight over the side on
20 the spar deck, which is a deck, a partial deck built
21 above the main deck. It would be about the same level
22 on the ship as the galley deck.
23 INVESTIGATOR STOLZENBERG: Understood.
24 CAPT. HEARN: Okay. Good.
25 INVESTIGATOR STOLZENBERG: And then the 50

1 trailers?

2 CAPT. HEARN: Well, they were --

3 INVESTIGATOR STOLZENBERG: What decks were

4 they on?

5 CAPT. HEARN: -- all, believe it or not,

6 over the ship. The heaviest damage was on the spar

7 deck. The main deck had the second amount of heavy

8 damage. The second deck quite a bit of heavy damage,

9 but we had about three or four trailers all the way

10 over on their sides even on the tank top.

11 INVESTIGATOR STOLZENBERG: Okay. Thank you.

12 INVESTIGATOR KUCHARSKI: On the telephone,

13 any further questions? Okay. This is Mike Kucharski

14 continuing.

15 Earlier on, Jack, you mentioned concerns

16 about securing of the containers. You mentioned

17 leverage or lever.

18 CAPT. HEARN: Um-hum.

19 INVESTIGATOR KUCHARSKI: Could you elaborate

20 on that?

21 CAPT. HEARN: Well, what I meant by lever

22 was a weight lever on the ship itself with the center

23 of gravity, because that's a very heavy lever to -- you

24 know, for the ship to feel. But the cargo -- are we

25 talking about the cargo lashing system right now? But

1 the cargo lashing system was strong and in tact. There
2 were transverse beams built out there that were put
3 into the fixed lashing pedestals and they were strong.
4 And I never had trouble with the car -- with
5 the containerized cargo. Once in a while we might
6 notice or find one corner fitting didn't catch
7 correctly and the twist locks, but it would be rare,
8 and because the longshoreman handles them so
9 frequently, they may notice that they were bad, because
10 they handle them for the most part. And there is
11 hundreds of them, if not a thousand of them out there,
12 so it's hard to do maintenance.
13 That's another thing, the company took that
14 cargo ashore, that cargo gear ashore also like the
15 roloc boxes and managed them or repaired them.
16 INVESTIGATOR KUCHARSKI: Would you -- are
17 you familiar with the lashing bar arrangement that --
18 CAPT. HEARN: Yes.
19 INVESTIGATOR KUCHARSKI: -- we are -- I have
20 pictures here if you would like to see any of them.
21 CAPT. HEARN: No. I'm familiar with it.
22 Well, it's a turn buckle and a lashing bar that goes up
23 to the corner of the fitting. The picture would help
24 to look at the cargo arrangement and the requirement.
25 I do remember looking at it many times on the ship.

1 There was a cargo manual for that.

2 And you know, why -- where it would go, how

3 it was done, depending on the cargo position, including

4 the cargo inside the block that was not secured by any

5 cross lashings, because it was almost a block system

6 where the cargo on the outside was lashed, but the

7 cargo inside secured to the twist locks and the

8 fittings on those transverse beams was not lashed with

9 those cross bars or those heavy container bars and turn

10 buckles.

11 INVESTIGATOR KUCHARSKI: During your time on

12 those ships as master on the Ponce A Class on the

13 Puerto Rican Run, did you ever ask for extra lashings

14 on the container stacks?

15 CAPT. HEARN: Not that I recall. It may

16 have been one incident in those years, but I don't

17 recall it. For the most part, it was a -- I had not

18 had trouble with it. I had not had heavy seas to

19 experience it, but it was -- and because it was

20 approved through the Herbert Engineering Manual, that

21 we have -- I think it was Herbert Engineering did that

22 manual.

23 But I remember the book. And it was a

24 reliable system. So we -- I didn't add to that system

25 or try to over -- you know, re-engineer it.

1 INVESTIGATOR KUCHARSKI: Would any of the
2 crew ever put extra lashings on the containers?
3 CAPT. HEARN: If they did on the containers,
4 the chief mate may notice something that he was not
5 sure of. We did have a couple of times where you would
6 see a container wiggling, you would see it from the
7 bridge, and moving. And we may go up and check the
8 securement. And this could happen even in a small sea
9 state.
10 But they would go out there and tighten the
11 lashings if they needed to be tightened. That one
12 might be the typical problem or it would be -- or they
13 would add some kind of a lashing to it, but it was
14 pretty rare event for that to happen. I would say once
15 every two years I've had something like that move.
16 INVESTIGATOR KUCHARSKI: When you mentioned
17 that you could see a container wiggling, let me jump
18 back to the RO/RO, permit me to, cargo. Were there any
19 type of cargos that were loaded inside the trailers, I
20 guess we could encompass the containers, which were
21 more problematic than other types of cargos?
22 CAPT. HEARN: Right. The reefer cargo is
23 much heavier than, typically heavier than, any other
24 type of cargo, because it is meat and it's packed right
25 to the top and it's a reefer, so it's got a reefer unit

1 on there also to keep it cold. So they would be a
2 heavy container. Probably 30,000 pounds.
3 There may be machinery parts. There would -
4 - that would be your typical heavy cargo that we watch,
5 your reefer units.
6 INVESTIGATOR KUCHARSKI: And are the reefer
7 units all mounted in a certain area on the trailer?
8 CAPT. HEARN: That would be -- yes. They
9 are all on that type of ship with the containers, they
10 would be on the end. And all in the same -- on the
11 same end, so that the -- you know, away from the doors,
12 so you could inspect them and operate them.
13 INVESTIGATOR KUCHARSKI: And --
14 CAPT. HEARN: Plug them in.
15 INVESTIGATOR KUCHARSKI: -- for the trailers
16 themselves, are there different locations where the
17 reefer units could go?
18 CAPT. HEARN: Years ago there were nose-
19 mounted reefers, but that has mostly faded away to
20 belly- mounts, undercarriage mount, you know, reefers.
21 So you didn't have that -- the nose-mount reefer, and
22 they still do exist, it's a higher lever that weight is
23 up top of the reefer unit, so it just adds to the
24 increased center of gravity on that trailer. And it's
25 a chassis trailer on tires and on a pedestal, so you

1 have a weight that can move, you know, up top there.
2 And if the ship is moving, it feels it and
3 you can see it. And if the lashings -- if the ship is
4 unsteady or there is a little bit of a deck camber in
5 that area, the pedestals aren't solid. You can see
6 that trailer moving. And so we might add lashings to
7 that, because you don't want any motion at all. That's
8 where it works the pedestal or works other lashings, so
9 you try to prevent that from going on.
10 INVESTIGATOR KUCHARSKI: When you say the
11 pedestal, are we talking about the roloc box?
12 CAPT. HEARN: The roloc box.
13 INVESTIGATOR KUCHARSKI: You mentioned
14 reefer-type trailers, the heavy trailers.
15 CAPT. HEARN: Yes.
16 INVESTIGATOR KUCHARSKI: The -- are there
17 any other particular loads that would be more
18 problematic?
19 CAPT. HEARN: On the trailers, we could even
20 be carrying a bulldozer, you know, or a heavy piece of
21 equipment or machinery that is chained down on a
22 flatbed. On the upper decks you may also have cargo
23 that is on a flatbed of some type that is
24 containerized, but it's an open bed that you can -- and
25 you can see the cargo out there and on it. So you

1 could have -- that might be a problem also. It's not
2 walled-in, but that's not the issue. It's really is it
3 secured well enough? And you may see it move.
4 INVESTIGATOR KUCHARSKI: Were there any
5 problems with the cargo on the ramps?
6 CAPT. HEARN: There could be. There was a
7 lot of lashing equipment on the ramps. When I was on
8 the Puerto -- on the Alaska Run we had frequent
9 problems on the ramp with cargo gear.
10 On the Puerto Rico Run, because the weather
11 was steady and more reliable, more manageable by ship
12 route, we didn't have as much problem with the ramp
13 cargo. And they didn't put the cargo on the ramps.
14 You couldn't get -- the one major feature of the ramps
15 and that's a good question, you didn't have roloc box,
16 roloc pins or buttons, excuse me, on the ramps. So
17 you couldn't roloc box down the trailer on a ramp. And
18 that's hard, because that roloc box is your primary
19 lashing point for a trailer.
20 INVESTIGATOR KUCHARSKI: So if you had a
21 trailer on the ramp, how would you secure it?
22 CAPT. HEARN: There was a lot of extra D-
23 rings on the ramp. And we would try to park them next
24 to each other, so that they couldn't fall over, because
25 if you didn't have one next to it, they would -- they

1 could fall into the trailer next to it and at least
2 keep it up right, so it was still on wheels.
3 INVESTIGATOR KUCHARSKI: Back to your
4 mention of changing course for a better ride of the
5 ship for cargo and crew.
6 CAPT. HEARN: Um-hum.
7 INVESTIGATOR KUCHARSKI: Was there any
8 maximum angle of roll you would consider a threshold
9 that you wouldn't exceed on the Ponce A Class vessels
10 post-conversion to con-roll or roll bar?
11 CAPT. HEARN: Yeah, it was about the same.
12 INVESTIGATOR KUCHARSKI: About the same?
13 CAPT. HEARN: Yes. It was about the same.
14 Because I would say that once you get to about 15
15 degrees, the crew starts getting uncomfortable. The
16 cargo starts working, where it is feeling it, a 15
17 degree roll. 10 degrees roll is uncomfortable, but
18 it's manageable. But the cargo starts breaking free --
19 I shouldn't say breaking free. It starts moving once
20 you get over 10 degrees.
21 And once it starts working, the longer it
22 works, the more problems you can have. If it only is
23 for an hour or two, if you are changing course of you
24 are adjusting for an approach to port, you might deal
25 with it. But if it's going to be a 12-hour period of

1 time at that much rolling, it would start to work cargo
2 free. So there is other factors than just the roll.
3 So these limitations depends on, you know, other
4 factors.
5 INVESTIGATOR KUCHARSKI: Is there any -- you
6 mentioned a roll. Is there any other motion to the
7 ship that causes the lashings to work free?
8 CAPT. HEARN: Yes, pitching, where you are
9 working into the wave. Pitching is when you take the
10 bow of the waves head-on and the lashings forward of
11 the ship in the bow area primarily the forward bays and
12 No. 1 hold maybe No. 2 hold will start to feel it the
13 most.
14 The stern area had a vibration, if the ship
15 was light, from the propeller and that would also shake
16 the lashings loose. So sometimes we had the forward
17 end and the aft ends were the biggest problems with
18 lashings.
19 INVESTIGATOR KUCHARSKI: Were there any
20 problems with tank trailers as far as surging of
21 liquids?
22 CAPT. HEARN: Yes. A tank trailer depending
23 on -- no matter what it carried, and we carried milk
24 trailers on the Alaska Run that were -- some of our
25 first lessons was trying to get those things lassoed

1 down, we used to say. And then the ISO tanks on a
2 trailer are very difficult. So we would try to get a
3 lower, what we called a lowboy, trailer to put an ISO
4 tank on.
5 But one of the problems with a tank is free
6 surface, so it would give you extra motion. That would
7 be --
8 PARTICIPANT ON PHONE: Good morning,
9 Michelle.
10 CAPT. HEARN: -- that might be a trailer
11 that you would see wiggling or moving around.
12 INVESTIGATOR KUCHARSKI: On the telephone,
13 would somebody mute your phone, please? Check your
14 mute. Thank you.
15 So you mentioned surging liquids in the --
16 CAPT. HEARN: Free surface in the tank could
17 be a problem.
18 INVESTIGATOR KUCHARSKI: -- free surface.
19 CAPT. HEARN: I have had trailers,
20 containers go over the side. Go over on their side
21 because of the free surface in the tank.
22 INVESTIGATOR KUCHARSKI: Did you also carry
23 liquid trailers on the Puerto Rican Run?
24 CAPT. HEARN: We did. Well, they were all
25 tanks, but they were fixed and very well-secured. And

1 we did have other liquid trailers on there, but
2 specifically, I don't remember them offhand. They are
3 just like all the other cargo I have carried.
4 INVESTIGATOR KUCHARSKI: You mentioned the
5 rum tanks.
6 CAPT. HEARN: Yes.
7 INVESTIGATOR KUCHARSKI: You said you were
8 on the --
9 CAPT. HEARN: El Yunque.
10 INVESTIGATOR KUCHARSKI: -- El Yunque. Did
11 the El Yunque have fructose tanks?
12 CAPT. HEARN: And there were fructose tanks,
13 yes.
14 INVESTIGATOR KUCHARSKI: Did you notice any
15 surging of liquids or any problems in those tanks?
16 CAPT. HEARN: No. And because I was
17 curious, I would even go down there in the holds to
18 look at that. But the fructose tanks were every well-
19 secured, fixed into the ship and they were, basically,
20 fixed tanks above the tank top level, which is the most
21 stable area of the ship in a rolling sea.
22 And I remember being down there and
23 wondering if I would even identify any kind of motion
24 in that tank, but I did not, including pitching motion.
25 So they probably were very full. It's a very viscous,

heavy liquid. And I don't remember any problem around free surface in those tanks.

INVESTIGATOR KUCHARSKI: What would happen if the lashings, I think you may have covered this and this is Mike Kucharski, were improper on the containers?

CAPT. HEARN: Depending on the sea state, it could fall over.

INVESTIGATOR KUCHARSKI: You mentioned, and we are going to look at this in detail, the CargoMax and container lashings, did you consult CargoMax for the sufficiency of lashings on the containers?

CAPT. HEARN: No. CargoMax was the stability program, so I looked at that first, stability of the ship and the voyage and stress. But the ships had changed configurations, so stress wasn't a problem with the SeaStar conversion compared to the Alaska Run. So it was -- stability was the -- the CargoMax system was primarily for stability. I would get the first couple -- I could get the copy of that every week to look at. Every voyage.

INVESTIGATOR KUCHARSKI: Okay. We will come back to CargoMax and stability-type questions.

CAPT. HEARN: Okay.

INVESTIGATOR KUCHARSKI: The longshore

1 gangs--

2 CAPT. HEARN: Um-hum.

3 INVESTIGATOR KUCHARSKI: -- do they have

4 separate gangs to your recollection?

5 CAPT. HEARN: Yes, they did.

6 INVESTIGATOR KUCHARSKI: Can you tell us

7 what gangs those were?

8 CAPT. HEARN: On the SeaStar Run they were

9 container, the container gangs up forward. They might

10 have several gangs work the holds depending on how many

11 cranes they were running and the port and what was

12 going on. And they would have one or two gangs for the

13 cargo down below also, the RO/RO cargo. And they were

14 guys that normally knew that work. If they were

15 hustler drivers that went down there, they were trained

16 and experienced with getting the cargo into positions.

17 They knew the stow positions, where it would go. And

18 the lashers were also experienced.

19 INVESTIGATOR KUCHARSKI: Is there a foreman

20 for that, each particular gang?

21 CAPT. HEARN: And they would have a foreman,

22 you know, directing everything.

23 INVESTIGATOR KUCHARSKI: Was that the title

24 of the person?

25 CAPT. HEARN: That's what we called him. I

1 don't know if they had a specific title within their
2 organization.
3 INVESTIGATOR KUCHARSKI: Did you ever hear
4 the word gang boss?
5 CAPT. HEARN: Many times.
6 INVESTIGATOR KUCHARSKI: Okay.
7 CAPT. HEARN: Yes.
8 INVESTIGATOR KUCHARSKI: Could you -- but
9 you -- it's -- you --
10 INVESTIGATOR ROTH-ROFFY: This is Tom Roth-
11 Roffy. Somebody, please, on the phone is -- does not
12 have their phone muted. Could everybody, please, check
13 the mute status of the phone?
14 PARTICIPANT: Mike, I'm hearing a bunch of
15 things I think that you've got people signing on that
16 may not have been identified yet.
17 INVESTIGATOR KUCHARSKI: Let's stop right
18 here. This is Mike Kucharski. Who do we have on the
19 line, on the telephone line, please?
20 MR. CASH: Jim Cash.
21 INVESTIGATOR KUCHARSKI: Jim Cash, who are
22 you?
23 PARTICIPANT: It sounds like there may be
24 another call that is assigned to this telephone number.
25 MR. CASH: Yeah.

1 INVESTIGATOR KUCHARSKI: Okay. Let's -- I
2 think we will terminate right now and we will get
3 another conference call number and circulate that.
4 It's 12:00 right now. Okay.
5 PARTICIPANT: Do you want to take a lunch
6 break?
7 INVESTIGATOR KUCHARSKI: Yes, let's take a
8 lunch break right now. Let's call it an hour. And we
9 will get the phone situation squared away. Anyone else
10 from either TOTE, ABS, ATC or NTSB that is on the line
11 that hasn't identified themselves?
12 Are there any legal entities on the phone,
13 besides the parties that I have mentioned that are on
14 the phone right now?
15 Okay. We will tune up again at 1:00. I'll
16 circulate a conference call-in. Thank you.
17 INVESTIGATOR STOLZENBERG: Thanks, Mike.
18 INVESTIGATOR KUCHARSKI: Thanks.
19 CAPT. HEARN: Okay. Thank you, sir.
20 PARTICIPANT: Thank you.
21 PARTICIPANT: Jim Cash is in our Office of
22 Research and Engineering.
23 INVESTIGATOR KUCHARSKI: Oh, he is?
24 PARTICIPANT: I don't know why he would be
25 on the call, there is no -- unless he is filling in for

1 somebody else, but he didn't say so.
2 INVESTIGATOR KUCHARSKI: Yes, but why --
3 yeah, then he would so.
4 INVESTIGATOR BELL: It sounded like a couple
5 of people came on.
6 PARTICIPANT: Although some people could
7 have left.
8 INVESTIGATOR KUCHARSKI: I'll call -- yeah,
9 yeah. Where things are coming in now, but --
10 PARTICIPANT: Could have left.
11 PARTICIPANT: Mike, do you have this number
12 for all day?
13 INVESTIGATOR KUCHARSKI: Until 5:00, yeah.
14 Until 5:00 or 6:00.
15 PARTICIPANT: So it's your number.
16 INVESTIGATOR KUCHARSKI: Okay. I'll call
17 Lock and ask them.
18 (Whereupon, the above-entitled interview
19 went off the record at 12:00 p.m. and resumed at 1:11
20 p.m.)
21 INVESTIGATOR KUCHARSKI: Okay. The time is
22 now 1:11 and we will continue with Jack Hearn, continue
23 his interview.
24 Jack, is there anything you wanted to --
25 CAPT. HEARN: Well, at --

1 INVESTIGATOR KUCHARSKI: -- clarify?

2 CAPT. HEARN: -- the break I looked at the
3 cargo manual and at a glance, you know, I recalled the
4 ABS-approval. And the -- because we were talking about
5 both classes of ship, the Northern Lights Ponce Class
6 that worked on the Alaska Run and then shifted to the
7 Puerto Rico Run with the SeaStar conversion, I didn't
8 recall immediately that we had a full ABS book
9 completed for that. But I -- right away, I remembered
10 it. It's a good book.

11 INVESTIGATOR KUCHARSKI: Okay. So the cargo
12 manual, this is Mike Kucharski, you're talking about is
13 the Cargo Securing Manual for the El Faro that is ABS-
14 approved?

15 CAPT. HEARN: That's correct, yes.

16 INVESTIGATOR KUCHARSKI: Okay. Great. And
17 we have a copy here before us. The approval stamp on
18 there is 20 January 2006.

19 Jack, continuing along the line of questions
20 on securing, I think I asked if the crew could add
21 extra lashings to containers and you said that they
22 could?

23 CAPT. HEARN: They could. If there was a
24 position, of course, they could.

25 INVESTIGATOR KUCHARSKI: Was cleaning of

1 cargo holds done on the Puerto Rican Run?
2 CAPT. HEARN: Not greatly. There was -- it
3 was a lot of work. It was very work-intensive
4 operation.
5 INVESTIGATOR KUCHARSKI: Was cleaning of the
6 cargo holds done on the Alaska Run?
7 CAPT. HEARN: Yes. It was more urgently
8 done on those ships, because we had a lot more dirt
9 coming on the ship from the -- especially in the
10 wintertime. The trailers -- and because it's trailer
11 cargo exclusively on that ship, a lot of dirt comes on-
12 board the ship. Alaska uses dirt and gravel to cover
13 the roads when it snows, so the trailers pick up all
14 that dirt and it comes on the ship pulverized and turns
15 into grime all through. So you have a lot more dirt on
16 those ships.
17 The Puerto Rican ships didn't have as much,
18 but, you know, the ships were older, so there is scale
19 and paint chips also and there is other dirt and
20 problems.
21 INVESTIGATOR KUCHARSKI: Were you aware of
22 any problems in the rose boxes or keeping them clean?
23 CAPT. HEARN: It's a regular maintenance
24 issue that you accomplish as much as possible.
25 INVESTIGATOR KUCHARSKI: I would like you to

1 look at the Cargo Securing Manual.
2 CAPT. HEARN: Okay.
3 INVESTIGATOR KUCHARSKI: And it is page 2014
4 of the section entitled "Stowage and Securing of RO/RO
5 Cargo."
6 CAPT. HEARN: Yes.
7 INVESTIGATOR KUCHARSKI: Okay. And at the
8 second paragraph, would you mind reading the second
9 paragraph? It's a short paragraph, so everybody can
10 hear what I'm going to ask you.
11 CAPT. HEARN: "Two lashing systems are used
12 to secure standard wheeled-vehicles, such as trailers
13 and automobiles to the decks on SeaStar's RO/RO ships
14 under all operating conditions. A standard wire
15 lashing system with a minimum breaking strength of
16 33,000 pounds is used for trailers in conjunction with
17 a roloc box. A second lighter lashing system is used
18 for automobiles and vans."
19 INVESTIGATOR KUCHARSKI: Is there a wire
20 system that is -- was also in place to lash the
21 trailers?
22 CAPT. HEARN: No, not for the trailers.
23 Chains.
24 INVESTIGATOR KUCHARSKI: It was all chains?
25 CAPT. HEARN: Chains and a roloc box.

1 INVESTIGATOR KUCHARSKI: Okay.
2 CAPT. HEARN: That's 33,000 pounds breaking
3 strength.
4 INVESTIGATOR KUCHARSKI: I would like you to
5 look at some pictures. Sorry, on the phone, that you
6 won't be able to see the pictures, but maybe you could
7 describe to them on the phone what we are looking at.
8 CAPT. HEARN: I've got a container on a
9 chassis and over top -- under that a roloc box
10 pedestal. I can't see if it's on a button. And it has
11 got two chain lashings coming to the center at a single
12 lashing point in the -- almost direct line with the
13 deck button.
14 INVESTIGATOR KUCHARSKI: Would you see that
15 type of lashing on the ship?
16 CAPT. HEARN: It's an incorrect lashing, but
17 you would see it.
18 INVESTIGATOR KUCHARSKI: You would see it?
19 CAPT. HEARN: Yes.
20 INVESTIGATOR KUCHARSKI: Okay.
21 CAPT. HEARN: It happens.
22 INVESTIGATOR KUCHARSKI: Thank you. And for
23 those on the phone, I apologize in advance, but I will
24 send copies of all these and I will incorporate them
25 also in the interview transcript.

1 But these particular photos come out of the
2 -- I'm sorry, the particular photo we are looking at
3 now comes from a lashing that was taken on the El
4 Yunque by [redacted] some time in December.
5 PARTICIPANT: Just a follow-up, when you say
6 an incorrect lashing, could you just expound on that?
7 CAPT. HEARN: Sure. Yes, sir.
8 INVESTIGATOR KUCHARSKI: You said that's an
9 incorrect -- yes?
10 CAPT. HEARN: It's incorrect for a couple of
11 reasons. One, it's -- it goes to one single lashing
12 point and it should go to two lashing points and it
13 should go off and away from the trailer, not -- it goes
14 to the center and it should go off to the side, so that
15 if you look at any of the diagrams, they should be from
16 the container about a 30 degree, 45 degree angle
17 outward and away from the cargo. This is going into
18 the center of the cargo, so nothing would prevent the
19 trailer, the container from flipping over, except the
20 cross-lashing. And it also shows in the diagram -- in
21 the book, cross-lashings are improper lashings. So
22 it's wrong both ways.
23 Plus, a single point if you had any other
24 stress on there and you lost that one lashing point,
25 you lose both lashings. So you try to double up your

1 lashings. You use different lashings. That puts
2 stress on that one lashing point, the D-ring. That's
3 wrong. Everything is wrong about that lashing.
4 INVESTIGATOR KUCHARSKI: Captain Jack, it's
5 interesting you say about the cross-lashings. Why do
6 you say the cross-lashing is not a good lashing?
7 CAPT. HEARN: Well, we learned on the Alaska
8 Run in severe weather how the trailers especially
9 relied on lashings to stay steady. And the roloc box
10 was very good at keeping the front end fixed in
11 position and held on to it. And the pedestal gave a
12 lot of stability to the trailer rolling back and forth.
13 So that was a pretty good lashing point,
14 although to get additional lashing on that front end,
15 we may go to the corners, because sometimes on the
16 Alaska Run it needed it, especially if the roloc box
17 became compromised by working in the weather over a
18 period of time, which could happen even over a night of
19 some severe weather like a 15 degree roll, which was
20 common.
21 On the rear end, if we had cross-lashings,
22 it actually tended to trip the trailer, because you had
23 a weight here and if the trailer -- if the container is
24 being held on the opposing corner, it would actually
25 allow this vehicle to fall over if you had a weight --

1 a strength member holding it down like that lashing on
2 the opposing corner. That high center of gravity
3 wouldn't trip, it would be held steady. Because you
4 want to hold that whole side down to the side of the --
5 to the deck of the ship.
6 So it makes logical sense when you look at
7 it where your center of gravity is of the cargo piece
8 and what the lashing is doing to that cargo piece,
9 holding it down on that corner. If you put it on the
10 opposite side, it will keep it from sliding, but it
11 will not keep it from falling over. In fact, and if it
12 does have any sliding motion and it starts to move in
13 that direction, depending on the force, the center of
14 gravity may carry the cargo over to its side and it
15 puts additional stress on the front lashing, which is
16 only a center point lashing, that king pin on the roloc
17 box.
18 So we went to -- we -- and, you know, just
19 studying it engineering-wise, but -- we knew from
20 experience that that's the right way to do it.
21 INVESTIGATOR KUCHARSKI: All right. Jack,
22 would you, please, look at Page 414 of the Cargo
23 Securing Manual? It's 4014, I'm sorry, in the section
24 again called "Stowage and Securing of RO/RO Cargo."
25 The actual section number is 6.2.2. And look at the

1 Figure 2, which shows alternate lashings. Do you see
2 that?
3 CAPT. HEARN: Yeah, I see that.
4 INVESTIGATOR KUCHARSKI: Would you consider
5 that a cross-lashing?
6 CAPT. HEARN: Yes. It's a cross-lashing.
7 INVESTIGATOR KUCHARSKI: And that's a
8 problematic lashing, from your experience?
9 CAPT. HEARN: It's a problem, yeah. It
10 would be a problem. It's acceptable in some areas if
11 you are just having motion, which is kind of steady, it
12 will work. Like I said, it will keep the vehicle from
13 sliding. But if you have a high center of gravity, it
14 can actually trip it and let it fall over. So it's a
15 secondary -- if you only had that lashing, at least you
16 have something to keep it from sliding. But it then
17 becomes a limitation that you are dealing with.
18 And I guess one of the things I have tried
19 to describe is there is always limitations or you can
20 only do so much with a complex cargo system, lashing
21 system and ship on a run. So you work with what you
22 get to make it, you know, as secure as possible.
23 INVESTIGATOR KUCHARSKI: Let me stop there
24 just for a minute. On the phone, so far on this line,
25 is there anyone that -- I'm sorry, in the room first.

1 INVESTIGATOR ROTH-ROFFY: Again, just to
2 follow-up on this drawing, sir. Tom Roth-Roffy, NTSB.
3 You said that it is not the best lashing,
4 but you did see it?
5 CAPT. HEARN: Yes, it happens.
6 INVESTIGATOR ROTH-ROFFY: Now, if you did
7 see it, would you try to correct it or would you just -
8 -
9 CAPT. HEARN: No. Well, again, not to
10 complicate any position, but if you think you are going
11 to have a good weather run, then you just don't make
12 more work than you -- you have put your priority where
13 it needs to be. If you are going into severe weather,
14 yes, absolutely fix it.
15 INVESTIGATOR ROTH-ROFFY: Okay.
16 CAPT. HEARN: And that's all they would do.
17 The crew would get out there and we would look for
18 problems, problem lashings and correct them or add
19 lashings to it. Sometimes it's easier to put another
20 lashing on.
21 INVESTIGATOR KUCHARSKI: And on the
22 telephone, sorry to interrupt, but it's -- we are back
23 to the first picture of the -- it looks like a
24 container on a flat rack that sits on top of a roloc
25 box.

1 CAPT. HEARN: Yes. It's on an empty
2 chassis.
3 INVESTIGATOR KUCHARSKI: And what deck would
4 you think that's on?
5 CAPT. HEARN: I think the second deck. I
6 think I see a piece of overhead next to the trailer,
7 the container. And it's -- I know that -- it's
8 probably the second deck. I would say it would almost
9 have to be.
10 INVESTIGATOR KUCHARSKI: Okay.
11 CAPT. HEARN: I doubt it's a cargo hold.
12 INVESTIGATOR KUCHARSKI: Does the second
13 deck --
14 CAPT. HEARN: Oh, no. Yeah, it's the third
15 deck.
16 INVESTIGATOR KUCHARSKI: It's the third
17 deck?
18 CAPT. HEARN: Yes.
19 INVESTIGATOR KUCHARSKI: How do you know
20 that?
21 CAPT. HEARN: Well, now I can see the -- you
22 pointed it out to me, just forward of the button, if
23 there is a button there, I can't see it, there is a
24 cloverleaf opening, which means it has to be third
25 deck. That's the only deck that has those openings.

1 INVESTIGATOR KUCHARSKI: The cloverleafs?
2 CAPT. HEARN: Yes.
3 INVESTIGATOR KUCHARSKI: Okay.
4 CAPT. HEARN: I can see another one now on
5 that right near the hole punch.
6 INVESTIGATOR KUCHARSKI: Okay. And just for
7 those people on the phone, these were also part of the
8 exhibits that were at the NBI, but again, I will
9 circulate them.
10 Picture No. 2, this again was taken --
11 actually, I took this one. This was on El Yunque in
12 October.
13 CAPT. HEARN: Um-hum.
14 INVESTIGATOR KUCHARSKI: And could you tell
15 us what we are looking at, please?
16 CAPT. HEARN: There is a chain running,
17 probably a forward ship, I can't tell which way the
18 chain is running, but it's running between two
19 vehicles. And there is lashings from the tire on the
20 vehicle to the chain.
21 INVESTIGATOR KUCHARSKI: Okay. And what
22 kind of vehicles are they?
23 CAPT. HEARN: Cars. Standard automobiles.
24 INVESTIGATOR KUCHARSKI: Automobiles?
25 CAPT. HEARN: Yes.

1 INVESTIGATOR KUCHARSKI: Okay.
2 CAPT. HEARN: With an open wheel that they
3 have lashings on.
4 INVESTIGATOR KUCHARSKI: Is that a proper
5 lashing?
6 CAPT. HEARN: It works. It's not the best
7 lashing, because the wheel -- something -- depending on
8 the wheel you are using, the best lashing is to put it
9 over the tire and then down to the lashing, then down
10 to the lashing point. So you wrap around the tire
11 itself, but that's time-consuming, so they will often
12 go to the wheel and then depending on the strength of
13 the wheel.
14 INVESTIGATOR KUCHARSKI: And it's acceptable
15 to put the hook into the chain like that?
16 CAPT. HEARN: If there is no other lashing
17 point that you can use that's fixed to the ship, the
18 only thing you can do is run the chain like this, like
19 is done here, and lash the vehicle to that to keep it
20 from sliding left or right. So it's -- I would have to
21 look at the manual to see if was acceptable to the
22 company, but there is many times where we did things
23 that worked because it was all we had, again, to secure
24 the vehicle as well as possible.
25 It would certainly keep it from moving too

1 much and keep it from damaging the vehicles next to it,
2 which is primarily your first issue, because you don't
3 have that much weather to deal with typically.
4 INVESTIGATOR KUCHARSKI: Okay. In your
5 experience -- you said almost 25 years on that run, on
6 both Alaska and Puerto Rico?
7 CAPT. HEARN: Well, closer to 30 actually.
8 INVESTIGATOR KUCHARSKI: About 30 years
9 experience. Did you find many problems with
10 automobiles breaking their lashings?
11 CAPT. HEARN: Yes. Depending on the
12 weather, of course, but they would break.
13 INVESTIGATOR KUCHARSKI: Now, Picture No. 3,
14 could you tell us what we are looking at here?
15 CAPT. HEARN: It looks like a reefer
16 container. There is a trailer on its side. I see a
17 roloc box, a stanchion on the ship. I can't tell what
18 is going on here. It is damaged cargo on it's -- on
19 the corner it looks like it fell off of the flatbed and
20 I see the roloc box on its side, so it probably tripped
21 the whole load. It fell off of it and then it fell to
22 the side. It looks like it's on a Ponce Class ship.
23 INVESTIGATOR KUCHARSKI: Any location that
24 that would be in? Would it be in a hold? Would it be
25 in the second deck? Can you tell by looking at the

1 picture?

2 CAPT. HEARN: It's either -- I would say

3 it's either the second deck or possibly forward on the

4 -- forward on the second deck or in the bow, No. 1

5 hold.

6 INVESTIGATOR KUCHARSKI: Picture No. 4,

7 would you, please, describe that?

8 CAPT. HEARN: This is a roloc box on the

9 third deck, because I can see the cloverleaf openings.

10 On the button, the pin is in the button, but the nut is

11 not secured.

12 INVESTIGATOR KUCHARSKI: Is that pin in the

13 locked condition? Can you tell by looking at that

14 picture?

15 CAPT. HEARN: I can't tell for sure. But it

16 probably is not because it looks like it's up actually

17 and out of the button. It's just over the button. It

18 wasn't pushed down, torqued in and then tightened. It

19 looks like it's out.

20 INVESTIGATOR KUCHARSKI: Okay.

21 CAPT. HEARN: If I was checking cargo,

22 that's the kind of thing I would get down on my knees,

23 push it in, check it out and, you know, get right into

24 it.

25 INVESTIGATOR KUCHARSKI: Can you tell us

1 what we are looking at in this picture?
2 CAPT. HEARN: It's ramp stowage vehicles on
3 the ramp. I think this is the after -- well, I'm not
4 sure what cargo deck this is. It might be on the
5 second deck aft the ramp leading up to the main deck.
6 There is vehicles stowed on it. It could be the
7 forward ramp from the bow leading up to the main deck
8 also. There is two ramps built like that that have an
9 overhead and it's one of those two. I would say this
10 might be the forward ramp from the second deck leading
11 up and there is cars on it.
12 INVESTIGATOR KUCHARSKI: Okay. And this is
13 --
14 CAPT. HEARN: The cars have no lashings.
15 They are just parked on their brakes.
16 INVESTIGATOR KUCHARSKI: This is Picture No.
17 7 in the series. I skipped ahead a little bit.
18 CAPT. HEARN: Okay.
19 INVESTIGATOR KUCHARSKI: Okay.
20 PARTICIPANT: Mike, just to be clear, these
21 will be part of the transcript?
22 INVESTIGATOR KUCHARSKI: Yes.
23 PARTICIPANT: As attachments?
24 INVESTIGATOR KUCHARSKI: Yes.
25 PARTICIPANT: Okay.

1 INVESTIGATOR KUCHARSKI: I'm going to put
2 all of them in the transcript. Yeah, I already said
3 that once. All the pictures, yes.
4 CAPT. HEARN: Okay.
5 MR. CRONIN: Yeah, I think you did.
6 INVESTIGATOR KUCHARSKI: Yes. Okay. Yeah,
7 yeah. Yeah, these will all be in the transcript, yes.
8 Picture No. 9, this is?
9 CAPT. HEARN: It looks -- from what I can
10 see, the quarter panel of a vehicle with lashings to
11 the wheel to a handrail. The post for a handrail, it's
12 secured to that and not to a lashing point, not to a D-
13 ring.
14 INVESTIGATOR KUCHARSKI: Is that an
15 acceptable lashing?
16 CAPT. HEARN: No, no, you wouldn't lash to a
17 handrail, no. You go to a D-ring or the cloverleaf,
18 that's what you use. You don't use -- you try not to
19 use stanchions, handrails, things like that, you know,
20 fixed parts of the ship. Sometimes if there is nothing
21 else, the guys may use that. And sometimes they use it
22 because it's easy.
23 INVESTIGATOR KUCHARSKI: So would you say
24 that that was more the anomaly than the norm?
25 CAPT. HEARN: The normal is to have a

correct lashing. Excuse me, lashed correctly.

INVESTIGATOR KUCHARSKI: And would you say that that -- normally they were correctly lashed?

CAPT. HEARN: Yes.

INVESTIGATOR KUCHARSKI: Okay.

CAPT. HEARN: These are the lashings that you fix with your crew, that they go out and check or you add additional lashings as good as you can.

INVESTIGATOR KUCHARSKI: Picture No. 10.

CAPT. HEARN: Yes.

INVESTIGATOR KUCHARSKI: Could you describe that? And this one was taken also on El Yunque in December by [redacted]

CAPT. HEARN: This is a good example of the roloc box being double lashed where the roloc box -- I can't tell if it's on the button or not. It looks like it is, but there is additional lashings on the roloc box that are properly led, because they lead aft, which pulls the roloc box onto the button. We had problems where people would lead them forward and the box would actually move off the pin and start to get away from it.

And then these lashings are also correctly led. They go at about a 35 degree angle to the lashing points forward of the container holding it down on the

1 most outboard side, which is very good. It's perfect.
2 INVESTIGATOR KUCHARSKI: And the hooks are
3 into the --
4 CAPT. HEARN: I didn't see that.
5 INVESTIGATOR KUCHARSKI: -- roloc box?
6 CAPT. HEARN: Normally, they try to bring
7 the hooks around this circle here, this hole, go to it.
8 They don't go up to that. So that's not perfect
9 anywhere. This is a little bit incorrect, because it's
10 -- that's a difficult point. It's okay. It will do
11 something, but it's not as good if the chain went to
12 the back to itself. But they have a slip hook on this
13 lashing, which is -- you should have a slip hook. It
14 should have gone in here. And this grab hook should
15 have been around the whole roloc point of lashing,
16 that's the way they are designed to be used.
17 INVESTIGATOR KUCHARSKI: So why is it not
18 good to have the hook, so people on the phone can
19 understand?
20 CAPT. HEARN: The stress on the slip hook is
21 difficult and we had like on rare occasions, but
22 occasions where the hook just didn't hold, so it was
23 better to be wrapped around and use a grab hook. The
24 slip hooks do do well on the deck fitting and that's
25 the way that -- I was involved when they designed that

lashing, that type of lashing with a slip hook at one end and a grab hook at the other. So that's what the purpose would be, but sometimes it's easier to grab the slip hook and just throw it up there. It's hard. It's hard work.

INVESTIGATOR KUCHARSKI: Picture No. 12.

CAPT. HEARN: Yes.

INVESTIGATOR KUCHARSKI: Can you tell us what we are looking at?

CAPT. HEARN: It's a slip hook and a D-ring with a barrel binder just ahead of it. And I see it looks like it is on the second deck. I don't see any deck openings, cloverleaf openings.

INVESTIGATOR KUCHARSKI: And is that a proper lashing there?

CAPT. HEARN: Well, there is -- you can kind of push the point about the slip hook leading up where the D-ring would fall into it if it fell slack as opposed to being open like this, but if the lashing fell slack a little bit, the D-ring could fall away.

So the right technique is to put the hook under the D-ring and hook it, so that if it did fall slack, the chain would fall slack, it would say hooked. It's kind of a small point, but that's the way we would train guys to do it. And because I spent so many years

1 doing this, you know, but it's hard to get everybody to
2 know these little details.
3 INVESTIGATOR KUCHARSKI: Picture No. 13.
4 What we are looking at, please?
5 CAPT. HEARN: This is a roloc box with a
6 second set of fittings, which is slip hook again on the
7 open fitting on the side of the roloc box. And on the
8 container above it, there is a barrel binder with a --
9 with the slip hook in the container, I think. Yes, I
10 see it is correctly used. The barrel binder is
11 correctly in position.
12 And I can't tell if the roloc box is secured
13 properly or not. It looks like it's in a stow
14 position. And there is at least two lashing points on
15 this front forward and front end of the roloc box.
16 INVESTIGATOR KUCHARSKI: And the hook that
17 is up into the container?
18 CAPT. HEARN: It looks like it's in the ISO
19 fitting on the corner of the container, which is the
20 best strength member you can get on a container.
21 INVESTIGATOR KUCHARSKI: Okay. Have you had
22 any problem with the hooks coming out?
23 CAPT. HEARN: Not normally. From my
24 experience, I have seen everything happen, you know,
25 but that's why I know so many small details that you

1 wouldn't normally work with on the Puerto Rico Run.
2 But normally, no, the cargo stayed stable. There was,
3 like you saw, maybe a wrong lead. It could be an
4 inexperienced lasher or he could have just been tired
5 towards the end of the night. They start getting worse
6 and worse as they keep working. But this normally
7 wouldn't fall out.
8 It could fall out in rough weather. I mean,
9 things happen to that gear that you wouldn't expect,
10 because there is also lashing points, like for example,
11 where the hook is positioned, in a rough sea the ship
12 will pound. And that cargo will pound with it and it
13 could -- there will be shock-loads on that and there
14 will be flexing everywhere through that -- those
15 lashing points.
16 So depending on the lead and how it was
17 managed, you know, all the connections up, if there was
18 any chance for that hook to open or fall off when that
19 -- it goes through that shock-load and flexing of the
20 cargo, it could fall out at that moment. And you
21 wouldn't expect it. That's kind of a short -- that's
22 why the short leads on the corners were good. The
23 shorter the better. The longer the lead, the more
24 flexing and moving of the chain. So you could actually
25 lose a lashing point that you normally wouldn't lose.

1 And that's why it is work for the crew to go
2 out there and find those points and put them back on
3 whenever they can get to them, because it's -- you
4 don't always have time to take lashings off and
5 reconfigure them. So sometimes you would just add
6 another one on. It's a lot of work anyway, but you do
7 what you can.
8 INVESTIGATOR KUCHARSKI: Picture 14.
9 CAPT. HEARN: Yes, sir. This is inside of
10 the roloc box from behind. You can see the V open and
11 it's properly fitted into the button. I think the pin
12 is in. It's hard to tell for sure and then the -- but
13 the nut is also secured tight on the -- above it to
14 keep it in place.
15 INVESTIGATOR KUCHARSKI: Okay. So would
16 this, from what you can see, be a proper fit?
17 CAPT. HEARN: Yes. The only thing that is
18 ever misleading is -- and it's one of the problems, if
19 they torque the roloc pin the wrong way, you don't know
20 it because it's unseen. It's on a spring. So you
21 can't tell if it was torqued correctly or incorrectly.
22 And you don't know it until it swings around
23 and pops out. And sometimes if -- and it wouldn't
24 happen until the nut became loose where it would start
25 to work. That's why we put the nuts on them and we try

to keep them very tight so it doesn't matter. Because the spring really just pulls that pin up out of the way and then puts it in. But the torque is a second benefit of using a spring, it keeps the torque in position.

INVESTIGATOR KUCHARSKI: And Picture 16 now.

CAPT. HEARN: It's a close-up view of a deck button. It's an older deck button that has been -- that lived a good life. It's hard to say, we are talking about visually inspecting. The lip that would secure that would be about here and about here, so that when you put the pin in and twisted around, the T would go in this way and then swing to go against those lips that would stop it from swinging around and popping back up again.

You can't see them to see if they are starting to wear out, so we used a tool, because you could walk around very quickly, measure it and if you were able to use that tool -- go into it, the button, twist the pin around, you would know if it was -- you could force -- you would just wiggle it. And if it would spin around, you would know that the button itself is starting to wear out. It's time to cut it. And we would usually paint it orange or yellow or white, something to notice it, so you would stop using

1 it. And we would try not to use it until we get it
2 removed and replaced. That's how they would work.
3 And then on these ships, now, when they were
4 getting older, you could -- an experienced officer
5 would be able to look and you would see the wear on the
6 button. Like you can see this is worn and had damage
7 to it. It's been run over a lot. It's rusting. And
8 it's starting to wear out. So that would be the one
9 you would go to right away and test it and make sure
10 it's in good shape. You know, serviceable at least to
11 do its job.
12 INVESTIGATOR KUCHARSKI: So there is no way
13 looking at this picture that you could tell whether
14 that button would operate properly or not?
15 CAPT. HEARN: No, I wouldn't. You couldn't
16 tell. As they get older, they get weaker like
17 everything, like us. But so you are always more
18 concerned about the older buttons, but the only way to
19 test it for wear is like that, unless you saw physical
20 damage to the button itself, a gouge, you know, a chip
21 in it from like the deck. Those roloc boxes are on the
22 trailer driving through and as they are driving
23 through, they could actually hit these buttons and they
24 would do physical damage to the outside. And if you
25 start to see damage or wear like that, you may say

let's just get rid of this button, you know, it's losing strength and cut it off.

INVESTIGATOR KUCHARSKI: When you left the El Faro this -- let me back up. This Picture 16 was taken on the El Yunque.

CAPT. HEARN: Um-hum.

INVESTIGATOR KUCHARSKI: It, I hate to say for lack of a better description, shows rust on the or corrosion on the deck and around the button.

CAPT. HEARN: Um-hum.

INVESTIGATOR KUCHARSKI: When you were on El Faro, when you left El Faro, was the ship in pretty good condition as far as the buttons and D-rings went?

CAPT. HEARN: I think it was. The ships are getting older and the second deck especially was the hardest deck to maintain for corrosion and even for the cargo gear, because it saw the most weather, the most service because those ramps and that cargo drove in those decks for many years when it was on the Alaska Run.

And even on the Puerto Rico Run, they -- especially in the traffic lane, they run that mid-body from the aft ramp up towards the number one ramp going down the holds. That cargo lane in that area got the most use and service for all the vehicles going through

1 it, so that is the tougher deck.

2 The upper -- on the El Faro, the cargo

3 system that was -- when it was containerized, it was

4 beefed up and like I said the transverse beams were

5 strong up there and they were in good condition and

6 they were new, relatively new to the other ships like

7 the El Yunque and the El Morro because she had been

8 converted in 2006.

9 INVESTIGATOR KUCHARSKI: Okay. I got it a

10 little bit too dark. Questions in the room? Questions

11 on the phone?

12 CAPT. NEUBAUER: Mike, I'm sorry, I have one

13 question.

14 INVESTIGATOR KUCHARSKI: Yes, sir?

15 CAPT. NEUBAUER: This is Jason Neubauer from

16 the Coast Guard. Jack, during your time in

17 Jacksonville, did you feel the longshoremen were well-

18 versed in the Cargo Securing Manual?

19 CAPT. HEARN: No. No, they were -- I worked

20 with several chief mates there, so I got to know them

21 very well and I -- because I didn't work directly with

22 the longshoremen, their foremen were fairly agreeable.

23 There was a couple that were a little bit more

24 difficult, but the longshoremen -- different in Puerto

25 Rico or different like in a trade in Tacoma or

Anchorage, Alaska, they knew the ships very well. They were regular guys coming on.

In Jacksonville, there was not as consistent a work force that came on the ship, so they were the least familiar with all the cargo. Not to say that they didn't, because some of them did, especially the drivers knew the system and their foreman knew the system. But the workers themselves may not always know the system and that's where we have more of our, you know, changes that we would need to make.

CAPT. NEUBAUER: And when you say know the system, like know for the training issues?

CAPT. HEARN: Proper leads to get the torque correctly with the button and things like that, yes. There would be more of an opportunity for them to make a mistake. Like the work would be done, but the mistake was more common there.

CAPT. NEUBAUER: Okay. Do you remember on that -- the Hurricane Sandy voyage you mentioned, did you -- do you remember any specific issues after you asked for the stronger lashings or the storm lashings on that voyage?

CAPT. HEARN: I don't remember that voyage in particular. Probably they were very (inaudible), you know, that would be my expectation.

1 CAPT. NEUBAUER: Thank you.
2 CAPT. HEARN: Yes, sir.
3 INVESTIGATOR KUCHARSKI: Okay. Anyone on
4 the phone?
5 Jack, is there anything else you would like
6 to say regarding the securing of cargo?
7 CAPT. HEARN: You know, I have got way too
8 much experience and years with this to -- we could go
9 down all kinds of different scenarios, but I think the
10 important thing to recognize is that these ships had a
11 long service of doing this kind of work and you work
12 with what you have. And most of the bugs were out of
13 the system, but you -- the workmanship and the issues
14 around getting some identical -- perfect issues is
15 impossible, because there is too much flexibility in
16 the cargo or the lashing points.
17 So you always have to work with what you
18 have as far as getting change down there to get
19 something done correctly. And that's just, you know,
20 part of the seamanship and the expectation of a cargo
21 system that is varied size cargos moving. And they
22 change all the configuration around so you always have
23 to look for the best securement you can get.
24 And that's a limitation with that type of
25 ship, but it's also been fairly workable for us.

1 INVESTIGATOR KUCHARSKI: Okay. Great. This
2 is Mike Kucharski back. We will skip to a new topic.
3 And I would like to move into ship handling.
4 CAPT. HEARN: Okay.
5 INVESTIGATOR KUCHARSKI: Can you tell us
6 what were the largest seas you were in on the Ponce
7 Class vessels as a RO/RO and then as a CON/RO?
8 CAPT. HEARN: The largest seas in the Alaska
9 Run, I was in a storm and I know some of the waves were
10 at least 70 feet. And that same storm had a buoy that
11 measured a wave 103 foot near us, because we had the
12 news article on it. We didn't know it until a week
13 later, but 50 foot seas were common on that run.
14 And I have probably been through at least
15 200 storm systems from storm to hurricane force
16 conditions with that class of ship. That's Alaska in a
17 nutshell, but -- and I have had it from every
18 direction. I have been HOV-2 (phonetic) for up to
19 about 24 hours riding waves and riding it out. You
20 know, where I'm just stuck in one position to take --
21 to get the ship through the storm or wait for the storm
22 to pass over the ship and we can get -- make seaway
23 again, to getting around or diverting around those
24 systems to take advantage of it and maybe even make
25 better speed.

1 INVESTIGATOR KUCHARSKI: And that was on the
2 Alaska Run?
3 CAPT. HEARN: That was on Alaska Run. So I
4 have a lot of experience with it, you know.
5 INVESTIGATOR KUCHARSKI: And that was while
6 the ship was in RO/RO service?
7 CAPT. HEARN: In RO/RO service, yes.
8 INVESTIGATOR KUCHARSKI: How about after the
9 conversion to CON/RO?
10 CAPT. HEARN: After the conversion I did a
11 number of voyages across the Atlantic to the Mid East
12 and also -- and I had some pretty rough trips over
13 there also, including one right at Gibraltar that was
14 very difficult. In fact, the ship was wrecked in
15 Gibraltar during that storm.
16 The same thing, seas coming from different
17 directions. I had -- on that voyage we had -- we did
18 not have containerized cargo, so the GM was different
19 in -- on those voyages across the Atlantic.
20 The one on the Puerto Rico Run, especially
21 towards the end, the -- we were carrying heavier loads
22 and that's almost a different animal with a full load
23 of containers than the conversion. So you have the --
24 I saw that ship in different service where it was
25 carrying military cargo and deck cargo, including

1 containers on the upper decks. And then when she was
2 on the Puerto Rico Run that's almost -- the big cargo
3 was the containerized section up on the upper decks.
4 INVESTIGATOR KUCHARSKI: So let me
5 understand then. When you took it over to the Middle
6 East --
7 CAPT. HEARN: Yes.
8 INVESTIGATOR KUCHARSKI: -- did it have the
9 spar deck?
10 CAPT. HEARN: No.
11 INVESTIGATOR KUCHARSKI: It did not have the
12 spar deck?
13 CAPT. HEARN: It had been converted to -- I
14 have -- both. I took the Northern Lights to the Middle
15 East and I also took the El Faro to the Middle East.
16 INVESTIGATOR KUCHARSKI: So the El Faro was
17 as a RO/RO?
18 CAPT. HEARN: No, the El Faro was converted
19 to SeaStar containerized, RO/CON.
20 INVESTIGATOR KUCHARSKI: All right. And the
21 Northern Lights?
22 CAPT. HEARN: RO/RO.
23 INVESTIGATOR KUCHARSKI: And you took the
24 Northern Lights to the Middle East?
25 CAPT. HEARN: Yes.

1 INVESTIGATOR KUCHARSKI: As a RO/RO?
2 CAPT. HEARN: Yes.
3 INVESTIGATOR KUCHARSKI: And you took the El
4 Faro to the Middle East after she was converted to --
5 CAPT. HEARN: Correct.
6 INVESTIGATOR KUCHARSKI: -- containers? But
7 there were no containers on deck for that trip?
8 CAPT. HEARN: No, we -- I have carried
9 containers even as a RO/RO on the upper decks. We put
10 extra cargo lashings out and carried them like that.
11 So we -- again, you work with what you have and you
12 configure the ship to get lashing points down.
13 INVESTIGATOR KUCHARSKI: So when you took it
14 over to the Middle East with containers on deck, how
15 high was the stack?
16 CAPT. HEARN: We didn't go higher than two.
17 INVESTIGATOR KUCHARSKI: No higher than two.
18 CAPT. HEARN: Correct.
19 INVESTIGATOR KUCHARSKI: And you said you --
20 CAPT. HEARN: As a RO/RO. Now, when we had
21 a container ship, I guess -- I'm sure we had three or
22 four high, at least a couple of voyages.
23 INVESTIGATOR KUCHARSKI: And you took that
24 to the Middle East with --
25 CAPT. HEARN: Yes.

1 INVESTIGATOR KUCHARSKI: -- a stack of
2 three?
3 CAPT. HEARN: Yeah.
4 INVESTIGATOR KUCHARSKI: And RO/RO cargo
5 beneath?
6 CAPT. HEARN: Yes.
7 INVESTIGATOR KUCHARSKI: And were you in bad
8 weather on that ship?
9 CAPT. HEARN: A little bit. Not, you know,
10 some of the most severe weather I've seen, but I have
11 had some bad weather out there, yes. Especially on the
12 European side and rough voyages.
13 INVESTIGATOR KUCHARSKI: On the European
14 side of the Atlantic?
15 CAPT. HEARN: Yes.
16 INVESTIGATOR KUCHARSKI: Towards you said
17 Gibraltar you were near?
18 CAPT. HEARN: Yes. I remember a couple of
19 trips having trouble, having to try to continually
20 divert the ship to get a better ride.
21 INVESTIGATOR KUCHARSKI: And could you
22 elaborate on that, the ride, and --
23 CAPT. HEARN: Well, in that condition and
24 the stability, it changes quite a bit and that's a
25 whole different conversation and we can get to

1 different phases of this. Those voyages, it was more
2 of a rough ride and I was worried more about the RO/RO
3 cargo, because the ship was stiff and the -- we had a
4 lot of tanks on the ship and even though they were on
5 wood, you still worry about them shaking the lashings
6 and moving side-to-side.
7 So with a stiff ship, you have more of an
8 opportunity for a shock stress on your lashings and
9 with the heavy lashings -- or heavy piece of cargo like
10 a tank, it's going to move. If it moves suddenly, it
11 can break every chain. So you try to not have very
12 fast movement on the ship. So I would do my best to
13 get that -- settle the ship out and not have that hard
14 fast roll with the ship on that run.
15 Moving over to the SeaStar Run to Puerto
16 Rico, you typically have, on a southbound voyage, a
17 heavier -- you know, smaller GM, so she is tender. And
18 your real problem is she is tender and that's a whole
19 different way to handle the ship. So but and the cargo
20 -- because she is tender, the ship moves slow. So you
21 don't have shock stress on those lashings down below.
22 There is not as much change of you having trouble with
23 cargo down there.
24 You are more worried about the upper cargo,
25 the containers, because they are hanging and relying on

1 those lashings to hold them until she starts to turn,
2 you roll back the other direction. So it's a very slow
3 concerning motion.
4 INVESTIGATOR KUCHARSKI: So the trip over to
5 the Middle East --
6 CAPT. HEARN: Yeah.
7 INVESTIGATOR KUCHARSKI: -- or the trips
8 that you made with containers on deck --
9 CAPT. HEARN: Yes.
10 INVESTIGATOR KUCHARSKI: -- stacked three
11 high and RO/RO cargo and you said you had tanks on-
12 board --
13 CAPT. HEARN: Right.
14 INVESTIGATOR KUCHARSKI: -- it was a stiff
15 ship. Was the -- could you explain that in GM terms?
16 CAPT. HEARN: Probably GM, you know,
17 ballparking around 6 feet, 7 feet. You would feel a
18 faster motion.
19 INVESTIGATOR KUCHARSKI: So was there more
20 excess GM?
21 CAPT. HEARN: I don't know if you would call
22 it excess GM, but it was just a larger GM. And with
23 that comes a little stiffer ship, a little faster
24 motion. And like I maybe mentioned earlier, you
25 prioritize what your worry is with the ship and the

1 cargo area and the system, because if you can
2 prioritize to your weakest cargo concern, the rest of
3 your cargo should make it through the voyage also.
4 So if you have tanks down below that are --
5 you are probably -- your primary concern for breaking
6 free. If you can manage your voyage to protect that
7 cargo, the other cargo throughout the ship is probably
8 a second -- not a secondary concern, but less of a
9 concern. So if you can protect that cargo, the other
10 cargo should hold up all right.
11 So I would usually base a lot of my decision
12 making process on the priority of what I'm trying to
13 protect as far as the weakness of the cargo and the
14 voyage itself and that would protect the rest of the
15 system.
16 INVESTIGATOR KUCHARSKI: And on those --
17 sorry.
18 CAPT. HEARN: That's all right.
19 INVESTIGATOR KUCHARSKI: On the trips as you
20 approach the Atlantic coast of Europe --
21 CAPT. HEARN: Yes.
22 INVESTIGATOR KUCHARSKI: -- you mentioned,
23 what size seas were you in?
24 CAPT. HEARN: Probably --
25 INVESTIGATOR KUCHARSKI: And where were they

1 coming from?

2 CAPT. HEARN: I had them from all

3 directions. One night in particular they came from

4 like three directions. A storm must have moved through

5 ahead of us and I just couldn't get the ship settled

6 down. It was dark, so I couldn't see. And you can use

7 the radar to get your largest sea state and swell and I

8 did finally manage to do that, but I would say 20 feet.

9 INVESTIGATOR KUCHARSKI: 20 feet?

10 CAPT. HEARN: 20 foot swell at least and the

11 sea state was probably 10 to 15 from another direction,

12 so it was a mess.

13 INVESTIGATOR KUCHARSKI: And just to make

14 sure I heard correctly, you said you were in 70 foot

15 seas up in the Gulf of Alaska?

16 CAPT. HEARN: Yes.

17 INVESTIGATOR KUCHARSKI: And here this was a

18 20 foot sea?

19 CAPT. HEARN: Well, the 70 foot sea in the

20 Gulf of Alaska you are HOV-2 and you are riding it out.

21 You are not going anywhere. You are maybe making 2 or

22 3 knots. And you could be turning 50, 60 rpms, but you

23 are really not making any way. You are just basically

24 trying to keep steerage to take those seas and you are

25 only managing the ship to get through the next set of

1 sea swells.

2 Over there I was actually making way, so I

3 was, you know, making the voyage and I was just trying

4 to settle the ship down to continue the voyage. And

5 you know, you can always settle a ship down in a 20

6 foot sea and calm it down, but you are not making your

7 voyage. And you have got to try to get the job done,

8 too, so there is a little difference in what you are

9 dealing with there.

10 INVESTIGATOR KUCHARSKI: And what kind of

11 speed were you making?

12 CAPT. HEARN: I was probably making 17 knots

13 or so.

14 INVESTIGATOR KUCHARSKI: 17.

15 CAPT. HEARN: 15 to 17 knots.

16 INVESTIGATOR KUCHARSKI: On the Puerto Rican

17 Run, what is the largest sea you have encountered?

18 CAPT. HEARN: Probably about the same and

19 that would -- most of the sea that I have had there was

20 swell, heavy sea.

21 INVESTIGATOR KUCHARSKI: Direction?

22 CAPT. HEARN: Coming out of -- well, we had

23 a very heavy swell. I'm trying to remember all the --

24 you know, the directions, but there was a northeasterly

25 that was very common out there on the run entirely down

1 the entire -- on the entire run.

2 INVESTIGATOR KUCHARSKI: Okay.

3 CAPT. HEARN: And you may have it once you

4 get off of the Bahamas all the way down to San Juan.

5 INVESTIGATOR KUCHARSKI: Did the ship --

6 CAPT. HEARN: That would be your

7 predominant--

8 INVESTIGATOR KUCHARSKI: Sorry?

9 CAPT. HEARN: That would be your predominant

10 heavy swell, east or northeast.

11 INVESTIGATOR KUCHARSKI: East or northeast.

12 Did the ship handle differently light -- coming up from

13 Puerto Rico as opposed to going down to Puerto Rico?

14 CAPT. HEARN: Yes. If you had -- if you

15 were carrying full load voyages, you would have a very

16 small margin of GM southbound and you would have quite

17 a bit -- a lot better GM northbound. A stiffer ship

18 again. And she may roll fast. You know, sometimes it

19 would be surprising. I have come out of San Juan

20 heading north and not anticipating motion, but it would

21 be dark, night when we typically sailed and we would be

22 rolling and galley gear would get thrown around.

23 Because we weren't as used to rough weather,

24 things weren't secured through the ship in the house,

25 so something might get thrown around. You would settle

1 the ship down, give everybody a chance to get the ship
2 seaworthy and settle for a voyage like that. And then
3 we would, you know, take more of a motion on the voyage
4 up.
5 INVESTIGATOR KUCHARSKI: So the practical
6 implication going with the more tender ship than a
7 stiffer ship?
8 CAPT. HEARN: Yes. The more tender ship is
9 probably the scariest ship to manage, you know,
10 depending on what you are dealing with. If you have a
11 quartering sea, it's hard, because you have trouble
12 with your steerage. The ship can yaw more and as she
13 is yawing, she rolls and that roll hangs. It's a very
14 slow roll in both directions. And it's -- you know,
15 not to put it into a scary light here, I know we are
16 talking about a tragedy, but it's -- the ship hangs and
17 it's a very slow roll.
18 You wonder not if she is going to come back
19 up, but is cargo going to start to break free because
20 it's hanging more on the lashings before it comes back
21 over. So you know the shock stress on a lashing. Now,
22 you have full stress and maybe added stress because she
23 is pulling, depending on how much she is rolling, it's
24 pulling on that lashing.
25 And that's a good example of that cross

1 lashing. If it's on the side, it won't trip, but if
2 it's hanging on that lashing, the weight may start to
3 finally break free and the cargo could fall over. So
4 you have a different type of -- it's a different factor
5 and a different way to manage the voyage and deal with
6 it.
7 But it's hard. There is almost nothing you
8 can do when you are trying to run with the sea to
9 reduce your motion, your rolling motion and your yawing
10 motion, because the seas are coming up from the stern
11 of you. They are lifting the ship and lifting the
12 rudder. You lose not full steerage, but some steerage
13 and the stern moves, not the bow, so your bow is
14 actually going the wrong way. And you have got -- and
15 then the stern has to correct to get that back on.
16 And she is rolling with it. But when she is
17 tender, she rolls slow, so it hangs in both directions.
18 And it's a little bit easier on the crew and personnel
19 because when she rolls, you can hang onto something.
20 You are ready for it and it goes the other way, you
21 know it's coming. But it's a slower, more painful
22 roll. And it's harder to handle the ship.
23 I have had in the worst conditions, you have
24 to turn the ship around and give up and HEV-2
25 (phonetic) it, which I have done on the Alaska Run. I

1 have never done it on the Puerto Rico Run where you
2 just turn the ship into the seas and you ride them
3 until the sea condition is better or you find another
4 route, a way around the system, because you are worried
5 about that hanging motion and the loss of steerage that
6 you are losing too much and you are going to have --
7 you are going to start having damage.
8 The longer you are in a sea, another factor
9 with this, state where the ship is rolling heavily, all
10 the cargo is working. All the lashings are working and
11 they start to give up. They start to weaken. They
12 start to loosen. Like some of the lashings that we saw
13 there and the crew can't keep up with all that work.
14 And it may get to the point where you pull the crew in
15 because it's dangerous for them to be out there. So
16 then you really only are relying on seamanship and ship
17 handling to get the ship through the weather system.
18 INVESTIGATOR KUCHARSKI: I'm going to stop
19 there. There is a lot of information, a lot that Jack
20 has mentioned. And I would like to go around the room
21 to see if there are questions. I know we have only
22 gotten to one point.
23 INVESTIGATOR ROTH-ROFFY: It's Tom Roth-
24 Roffy. You mentioned the -- in some -- I believe it
25 was on the Alaska Run you had had the -- at times you

1 had to HOV-2.

2 CAPT. HEARN: Yes.

3 INVESTIGATOR ROTH-ROFFY: And just maintain
4 steerage weight. Could you expound on that a little
5 bit more? What does that HOV-2 mean? And why do you
6 want to maintain steerage way for starters. If you can
7 address that, please?

8 CAPT. HEARN: Well, I can give you a good
9 example which explains it well. The storm that had
10 the-- well, I don't know if it had the 103 foot wave or
11 not, but we certainly had 70 foot waves.

12 I was running with the sea and this is a
13 ship that is stiffer and has RO/RO conversion with the
14 Northern Lights. In fact, it could have been the
15 Westward Venture, the same class.

16 I was losing steerage so much the ship was
17 rolling harder and longer, hanging over as much as 30
18 degrees. And because the seas were running with us, I
19 wasn't getting propulsion on the rudder. I wasn't
20 getting steerage. So she was swinging. And you are
21 almost worried that you are going to broach more and
22 hang out there and lose cargo or get somebody hurt.

23 So I -- the point where I was just -- I lost
24 confidence that I was going to be able to keep the ship
25 steady. I had -- I already had cargo damage. We

1 turned -- it was dark. And I had six containers fall
2 over off of a ramp, because we hadn't anticipated
3 really bad weather and we loaded them on the ramp.
4 Anyway, they had all fallen over. Probably they had
5 been lose and I didn't see it and then when they went,
6 it pushed the others other with them. So we had a
7 block of cargo fall.
8 I decided not to no longer try to -- because
9 I couldn't control the ship and keep her running stable
10 with those 30 degree rolls or 20 degree rolls,
11 exceeding 20 degrees. What I would typically do is
12 wait for some severe rolling, because you can't see the
13 swells. And when we would get through that set, I
14 would have the engineers ready and we would maneuver
15 the ship and turn into the sea.
16 And I would -- so at that point, I would --
17 once I got through that one bad set, I -- you would
18 anticipate you are going to have a little bit of a
19 smaller sea state, because typically big waves run in
20 sets. I would put the rudder hard over and increase
21 power and swing the ship into the sea and then
22 immediately once I saw her -- once she finally started
23 getting steerage, I would turn into the sea and then
24 reduce power and then just manage the sea riding those
25 waves and taking it on the bow at one angle or the

1 other, usually not direct, but 15 to 20 degrees to one
2 side and then try to ride out the storm.
3 And you would give up progress on the
4 voyage, but it would be basically managed for the
5 safety of the ship and the cargo and the personnel and
6 you would just ride into those seas.
7 And once you turn into a sea, and I remember
8 that storm condition, the ship was turning me. I did
9 the same exact thing. I told them that I had -- what I
10 had done and they said we are doing the same thing,
11 because they were having the same problem. And we both
12 just rode out the storm right there where we were. We
13 were off of North Vancouver Island.
14 And you just slow down and you ride into the
15 sea. The ship calms down. It's easier to manage the
16 steerage. It's also easier to manage the rolling as
17 you are riding into the swell, so you are not rolling
18 side-to-side and you have less opportunity for cargo
19 damage, because you are not rolling as hard and putting
20 stress on those lashings.
21 The waves are coming over the bow or coming
22 onto the bowels and usually the ship is built for it up
23 there, so it handles it better up there.
24 So typically, my experience once I'm HOV-2
25 and I've been HOV-2 for more than a dozen times, it's

1 just not comfortable because you are still pitching and
2 pounding into heavy seas, but it's more manageable and
3 you have control of the ship again. And hopefully you
4 get through it.
5 Like I said, I have had those waves come
6 over the bow and you are still in a bad storm, so it's
7 not a good situation to be in, but it's all you have
8 got.
9 INVESTIGATOR ROTH-ROFFY: And you used
10 another term, broaching. Could you describe what that
11 means?
12 CAPT. HEARN: Broaching is if you are beamed
13 to the sea or the sea is enough on the ship to make it
14 roll harder to one side and then to the other. And if
15 you get into the trough and I have been in -- I have
16 broached with a ship before. I was second mate. We
17 took a 56 degree roll, which threw the ship into
18 pandemonium. Everything went. Two guys got hurt bad.
19 They were thrown against -- out of their bunks against
20 bulkheads in their rooms.
21 Nothing held on, because even if it was
22 secured to the deck, it was all of a sudden hanging off
23 of a bulkhead. You know, you can imagine hanging --
24 turning the floor temporarily into a bulkhead and
25 that's what happens with that slow row where the ship

1 all of a sudden is on a 50 -- 40 degree angle and it is
2 hanging there before it -- you know, it's good -- there
3 is greater chance that it will fall, break away, things
4 start breaking, that can also hurt people. Cargo
5 breaks away. Your propulsion system has trouble with
6 that kind of a slow hanging roll, so you don't do that.
7 Broaching is a really bad situation, plus
8 you can also possibly get deck edge aversion, depending
9 on your freeboard with the whole sea. The entire sea
10 can come onto the ship and that's as bad as it gets,
11 because now you are shipping all that sea across your
12 deck. It's a temporary GM problem. It's a temporary
13 watertight integrity problem. But it's a very
14 dangerous situation for the ship. They can survive it,
15 but it's very difficult.
16 INVESTIGATOR ROTH-ROFFY: So from your
17 experience and your understanding of ship handling in
18 heavy weather, do you have any understanding of or idea
19 of what might happen if a vessel loses propulsion in,
20 you know, those kind of conditions we have just been
21 talking about?
22 CAPT. HEARN: Yes. That ship that I
23 mentioned earlier had lost steerage and that's why she
24 broached. I have lost propulsion many times also. It
25 depends on the -- a lot of factors which way the ship

1 will lay in a sea. It's not uncommon for her to lay
2 head-on a little bit or actually a lot of times it's
3 the containers in the wind that really will direct the
4 angle of the ship. And it depends on how long it has
5 been at that position.
6 But it is a good chance you are going to
7 really roll violently with the waves. They are
8 probably going to get closer to the beam than you want
9 them, no matter how you start and how she starts to
10 settle into that swell. I can't tell you where this
11 class of ship would settle, but I think that your
12 containers and the wind direction will be your number
13 one factor on which way she will angle towards the end,
14 you know, where she is laying.
15 And it will probably -- the house also is a
16 big sail area section of the ship that will help to
17 settle, but a lot of times what happens with that ship,
18 a lot of time she would bow in to the wind. But with
19 all those containers up there, it's hard to say. I
20 would lean towards the other direction, she would go
21 towards the stern.
22 The sea state wouldn't direct it, I don't
23 think, but it would be violent for the ship.
24 INVESTIGATOR ROTH-ROFFY: That's all.
25 CAPT. HEARN: Did that answer it, sir?

1 INVESTIGATOR ROTH-ROFFY: Yes, sir. Thank
2 you.
3 INVESTIGATOR KUCHARSKI: Captain?
4 CAPT. NEUBAUER: Jason Neubauer, Coast
5 Guard. Sir, was it your understanding during the
6 Puerto Rico Run that you could ballast if the ship got
7 too tender? Was that an option that was available to
8 you?
9 CAPT. HEARN: There is limited ballast area
10 on that ship. Most of it was forward or you did have
11 capacity on the stern. There wasn't a lot of
12 ballasting opportunity. The El Faro had been
13 converted. Two of the fuel tanks had been moved to
14 permanent ballast, so she was mostly ballasted as much
15 as she could be. There was the ramp tanks, you could
16 ballast it with a few hundred tons, the weight you
17 could put down there.
18 And you know, possibly up in the forepeak
19 areas, those are the peak tanks that you have, you
20 know, one being starboard. One would be port, one
21 would be starboard.
22 CAPT. NEUBAUER: Okay.
23 CAPT. HEARN: But that's not as much ballast
24 as it is trim up there.
25 CAPT. NEUBAUER: Were you ever aware that

1 somebody used that option? Did you ever use it?
2 CAPT. HEARN: Yes. Well, I used it on other
3 ships, of course, so I have done it many times. And I
4 have got voyage experience with that kind of thing
5 going across the Pacific with heavy swell. And it
6 helps tremendously to get your stability back. And
7 depending on the ride and the condition of the ship,
8 they are all different animals and I don't want to
9 compare apples to oranges here and mix up what our
10 understanding would be.
11 CAPT. NEUBAUER: Okay. But for the Puerto
12 Rico Run --
13 CAPT. HEARN: Um-hum.
14 CAPT. NEUBAUER: -- are you aware of people
15 using that ballast option or did you ever use it on
16 that run?
17 CAPT. HEARN: Well, I use it on that run
18 frequently, but it was more for trim forward, which we
19 believe would give us better voyage efficiency with
20 fuel.
21 CAPT. NEUBAUER: And then I have a
22 visibility question, sir. When you are in heavy
23 weather, could you -- did you have good visibility of
24 the containers? And what I mean is would you be able
25 to know if like a container up forward was leaning or

1 lost just without a deck crew going to check?
2 CAPT. HEARN: You could see fairly well up
3 there. If the upper rows were starting to move, like I
4 said, we could see a wiggle up there. And even in bad
5 visibility, I would turn my lights on or watch with
6 binoculars. You might do that temporarily if you have
7 traffic around and after a while I start doing it all
8 night long in rough weather conditions. But you could
9 -- that's just a little trick of the trade to do that.
10 And you would use your binoculars to watch
11 the cargo. Not that you could always do much about it
12 possibly, because it's (inaudible), but you would know
13 if you are starting to get loose cargo. And that's an
14 indicator that you might have to change how you are
15 handling the ship.
16 CAPT. NEUBAUER: Yes, sir. Thank you.
17 CAPT. HEARN: Yes, ma'am?
18 INVESTIGATOR BELL: This is Carrie Bell,
19 NTSB. Just a couple of questions. You mentioned when
20 you were talking about in heavy weather, there are
21 different options. You can take a different route.
22 You can turn around and go back.
23 CAPT. HEARN: Yes.
24 INVESTIGATOR BELL: And you said that you
25 never turn around and go back or you have never done

1 that on the TOTE ships. Is that my understanding?
2 CAPT. HEARN: No, not true. I have.
3 INVESTIGATOR BELL: Oh, okay.
4 CAPT. HEARN: Yes.
5 INVESTIGATOR BELL: Can you describe that?
6 CAPT. HEARN: Well, I had on the TOTE, on
7 the Alaska Run, I have had to turn back into port up in
8 Alaska. It was too violent to go out of Cook Inlet and
9 I turned the ship around and went back inside. There
10 is a big mountain protecting us from the rough seas.
11 And I went back out about six hours later, it was still
12 too rough and then about four or five hours later than
13 that I started to make my way out. So I have done it
14 and you can do things like that.
15 INVESTIGATOR BELL: Have you ever done that
16 on the Puerto Rican Run?
17 CAPT. HEARN: No, I never had to do it
18 there. I was always able to manage. I had swell
19 conditions and I would be able to manage it like I had
20 learned in Alaska to just continue the voyage looking
21 for an angle to put on the ship to give her a better
22 ride and still make progress towards my destination
23 port in both directions.
24 INVESTIGATOR BELL: Okay.
25 CAPT. HEARN: And the only other option was

1 to go a different route around the islands.
2 INVESTIGATOR BELL: Was that something you
3 did on a routine basis?
4 CAPT. HEARN: I wouldn't say it's routine,
5 but it was always an option to be considered. And I
6 liked to consider it because it was a better ride there
7 and safer. So if you are out there roughing it,
8 compared to going inside the islands, you would look
9 for that opportunity. But we didn't do it
10 irresponsibly. We could make the voyage, you know,
11 effectively on the outside. We stayed on the outside.
12 INVESTIGATOR BELL: So how would you assess
13 that risk?
14 CAPT. HEARN: Normally, it was around other
15 issues. Like very severe weather, like a hurricane or
16 if we were doing specific work that would be slowed
17 down by rough weather we were dealing with. Though the
18 normal voyage we could handle, but because of the work
19 we were doing, like it could have been boiler work or
20 we did work with the rum tanks when I was on the El
21 Yunque, we went on the inside route, it's another 60
22 miles, but it was calmer and better weather, so the
23 work could progress.
24 INVESTIGATOR BELL: Um-hum.
25 CAPT. HEARN: And it was worth the extra,

1 you know, time and work to bring the ship around that
2 way. So it was -- it's much more voyage reliability.
3 INVESTIGATOR BELL: Okay. And when you
4 would do that, would you notify the company?
5 CAPT. HEARN: Absolutely.
6 INVESTIGATOR BELL: How did that work?
7 CAPT. HEARN: Absolutely.
8 INVESTIGATOR BELL: Did you decide as a
9 crew? I mean, did you decide and then you talked to
10 your --
11 CAPT. HEARN: I would discuss --
12 INVESTIGATOR BELL: -- crewman then?
13 CAPT. HEARN: -- it with the company and
14 they would be part of the decision process. I would
15 never just do that on my own.
16 INVESTIGATOR BELL: Okay.
17 CAPT. HEARN: So that they were aware of
18 what I was doing with the ship, where I was taking the
19 ship, what my intentions and what the focus was,
20 because if they said no, the priority is different than
21 you think, Captain, I would follow their direction. If
22 we had to stop the work, we would stop the work. If
23 they thought yeah, that's a good idea, we were usually
24 together on that decision.
25 INVESTIGATOR BELL: So did you -- in turn

1 when you mentioned priority, so how would you -- how
2 would they decide what was priority or how do you
3 understand this is priority on this trip versus on that
4 trip?
5 CAPT. HEARN: Well, I might not know
6 everything they know about expectations of the voyage
7 and the ship as far as cargo or work or what they
8 planned. Say, for example, work performance or repairs
9 or any kind of maintenance that they were doing, they
10 might know that they have another window further down
11 in the shipyard or it's going to be more cost-effective
12 to do it later or they might suspend the work and then
13 change things. So I would -- it would have to be a
14 discussion that they were brought into, because the
15 company's priorities would really, you know, strongly
16 influence my decision --
17 INVESTIGATOR BELL: Um-hum.
18 CAPT. HEARN: -- on what, you know, was the
19 best route to take and the best way to manage that
20 voyage. And it was a week-to-week decision.
21 INVESTIGATOR BELL: Okay.
22 CAPT. HEARN: Depending on what went on.
23 INVESTIGATOR BELL: Thank you. I have one
24 more question.
25 CAPT. HEARN: Yes, ma'am.

1 INVESTIGATOR KUCHARSKI: Yes. And, Carrie,
2 could you bring it to ship handling? We are going to
3 cover weather routing and management and everything
4 else, so.
5 INVESTIGATOR BELL: Okay. This is just a
6 question related to a statement you made earlier. You
7 mentioned that you are not accustomed to rough weather
8 on the Puerto Rican Run.
9 CAPT. HEARN: Correct.
10 INVESTIGATOR BELL: And that some -- so
11 stuff gets thrown around sometimes like in the galley -
12 -
13 CAPT. HEARN: Yes.
14 INVESTIGATOR BELL: -- you mentioned. So as
15 a master, how do you address that with the crew?
16 CAPT. HEARN: We have monthly safety
17 meetings. And if like during the winter season came up
18 or when we knew we were starting to come out of Puerto
19 Rico and that heavy swell was going to be there for
20 that conventional period of time, we would discuss it
21 with the crew and start -- and even post it on the
22 board, heavy weather when sailing Puerto Rico. So the
23 guys would get the word around, we would pass the word.
24 We would post it and we would bring it up to the safety
25 meeting to familiarize them as well as possible.

1 And sometimes I would grab a couple crew
2 members and have them sweep the ship anyway to secure
3 anything loose, just walk around with line and fix
4 anything that could possibly hurt them or get hurt or
5 damaged to make sure the ship was ready for departure.
6 INVESTIGATOR BELL: Thank you.
7 CAPT. HEARN: You're welcome, ma'am.
8 INVESTIGATOR KUCHARSKI: Okay. On the
9 telephone, any follow-up questions on ship handling?
10 MR. [redacted] I have one real quick with the
11 ship handling. This is Mike [redacted] with the US Coast
12 Guard. You had said that it -- during the weather it
13 presented challenges to the propulsion system. Can you
14 be just a little bit more specific as to the challenges
15 that it presented to the propulsion system in the heavy
16 weather?
17 CAPT. HEARN: Well, I can't get too
18 specific, because there is a lot. It's a steam plant
19 and for -- but for one, let me try to hit a couple of
20 points.
21 The boiler is our water system. You've got
22 issues around that. You've got a fuel system that can
23 get stirred up and get sludge into the strainers and
24 that's a problem if you are rolling and pitching quite
25 a bit. If you are pounding, the steam lines become a

1 concern because the ship is going through that pounding
2 shock and you have got steam lines all around your
3 personnel working in the engine room.
4 So you have got -- and then you've got your
5 experience factors. What kind of personnel do you have
6 and how well can they manage everything and let you
7 know if they are having trouble? If you have a very
8 experienced group of guys, like I got used to working
9 with in Alaska that have seen plenty of heavy weather,
10 they wouldn't know to give you an indication hey, we
11 are having trouble down here, can you do something to
12 change the ships, you know, the pounding or the rolling
13 or whatever is going on. And we would try to, you
14 know, manage the rest, you know, other factors of the
15 voyage.
16 That's why it does get complicated. And
17 then the other issue is -- around the propulsion is the
18 rudder and the propeller outside of the ship. If you
19 are taking such heavy seas and the propeller comes out
20 of the water, you can feel that vibration through the
21 ship, that's one indication.
22 But usually you would slow down and try to
23 manage that to avoid it. And you also lose steerage
24 and, of course, your rudder is hanging out there. You
25 don't want to damage your steering system.

1 And if you are pounding by the stern or
2 slamming the stern, you can damage your gear back there
3 also and that's another concern with your equipment.
4 And sometimes -- that's a very unusual thing to feel,
5 but the fact that it takes a while to realize that your
6 stern is slamming, but you can damage your gear back
7 there. So we would -- you know, you have oil systems
8 that are protecting the bearings around your shaft, so
9 you are worried about all that.
10 That's a very fast answer to that, but
11 usually I would work with the chief engineer on those
12 issues and ask him if he is having any trouble to let
13 me know. And if we were preparing for anything, we
14 would work together to get the right personnel down
15 there to manage the system, because you can't have a
16 problem. If you are getting ready to turn or deal with
17 rough weather, you want everybody down there to manage
18 the ship. Because if something goes wrong at the wrong
19 time and you lose the plant, bad things happen.
20 Does that answer your question in a
21 nutshell, sir?
22 MR. [redacted] It does thank you. I have more
23 questions, but I'll save them for later. I think we
24 have engineering coming up.
25 CAPT. HEARN: Okay.

1 INVESTIGATOR KUCHARSKI: This is Mike
2 Kucharski and we do. We have a whole section on
3 engineering. Thank you, Mike [redacted] Anyone else on the
4 phone?
5 MR. MILLAR: Mike Millar with ABS. Captain,
6 when you talked about being in a broached condition, a
7 56 degree roll, was that as a result of loss of power?
8 CAPT. HEARN: That was a loss of steering.
9 MR. MILLAR: A loss of steering. So you
10 still had propulsion, just no ability to steer?
11 CAPT. HEARN: We were steaming in circles or
12 started to, so we would broach, clear it, broach, clear
13 it until we could finally get men down in steering to
14 get it in the hand-steering.
15 MR. MILLAR: Okay. Have you -- and I
16 misspoke. I meant to say loss of propulsion, not loss
17 of power.
18 CAPT. HEARN: Yes, sir, I understood that.
19 It's the same. Almost the same thing.
20 MR. MILLAR: Have you -- did you ever
21 experience condition where you had lost propulsion and
22 found yourself in a beamed condition to the weather?
23 CAPT. HEARN: Not severe weather. I have
24 lost propulsion numerous times at sea and -- but it
25 wasn't severe weather, so it as a rolling. I did

1 broach, but it was the kind of thing the ship could
2 handle. And that's why I could give you some
3 description of where the ship may lay in the weather.
4 But, you know, with the wind, the wind seemed to be --
5 MR. MILLAR: That was one of the RO/ROs?
6 CAPT. HEARN: Actually, I have been on
7 several ships that have lost power because I worked for
8 MARAD, not to make that funny, but --
9 MR. MILLAR: Specifically to the Ponce
10 Class?
11 CAPT. HEARN: The Ponce Class, I have lost
12 power with them also offshore and my experience is that
13 the wind would direct the ship. I never lost
14 propulsion in severe weather with that class of ship.
15 Not that I remember. If we did, it was very temporary
16 and we got it back.
17 I had one voyage where we blew a steam line,
18 it fractured, and we were losing propulsion and losing
19 steerage, but we got into an island before we lost the
20 plant.
21 MR. MILLAR: Okay. So there has been no
22 experience with loss of propulsion on the Ponce Class
23 vessels?
24 CAPT. HEARN: Not in severe weather.
25 MR. MILLAR: In severe weather, yes. Okay.

1 Thank you very much.
2 CAPT. HEARN: Yes, sir.
3 INVESTIGATOR KUCHARSKI: Any other ship
4 handling questions?
5 Okay. Captain Hearn, Jack, did you ever
6 have to turn the ship and run before the seas after
7 being HOV-2? After heading into it?
8 CAPT. HEARN: Yes. That voyage where I had
9 to HEV-2, the seas were still in the same condition,
10 but I was able to -- once they calm down enough, I
11 could run with the sea.
12 INVESTIGATOR KUCHARSKI: Which voyage?
13 CAPT. HEARN: The one where I was HOV-2.
14 INVESTIGATOR KUCHARSKI: Okay. Was it on --
15 CAPT. HEARN: That was on Alaska.
16 INVESTIGATOR KUCHARSKI: In Alaska?
17 CAPT. HEARN: Yeah.
18 INVESTIGATOR KUCHARSKI: How about in the--
19 CAPT. HEARN: In Puerto Rico I never had
20 that HEV-2. I have run with the sea many times with
21 the ship and that's why I know about that hanging roll.
22 But you would also feel that with just the ship
23 handling itself, even in a calm sea if you put the
24 rudder over, you would feel that ship, you know, heel
25 with the weight of the upper deck.

1 INVESTIGATOR KUCHARSKI: You mentioned about
2 having the engineers standing by --
3 CAPT. HEARN: Yes.
4 INVESTIGATOR KUCHARSKI: -- when you went
5 from -- you were at a quartering sea and then had to
6 change to HEV-2?
7 CAPT. HEARN: Correct.
8 INVESTIGATOR KUCHARSKI: Could you explain
9 why you had to have them do that?
10 CAPT. HEARN: Well, because we would change
11 propulsion and speed and if there is -- and it is going
12 to be relatively fast, so you want your best engineers
13 that know the plant and anything that can go wrong with
14 the plant to manage the propulsion system and react to
15 it quickly for you.
16 I also wanted them alerted to what I was
17 doing with the ship and changing, so that they were
18 aware of any -- if there was anything else they were
19 concerned about with the propulsion, the steering, the
20 shafting, all those systems, that they could, you know,
21 go pay attention to it themself. They might send
22 somebody back to look at steering to make sure that it
23 was looking good.
24 INVESTIGATOR KUCHARSKI: Okay.
25 CAPT. HEARN: Because things shake loose.

1 So we checked -- we would check a lot of things. It
2 would be a discussion between me and the chief
3 engineer. I have been through many chief engineers
4 probably more than a dozen.
5 INVESTIGATOR KUCHARSKI: So when you were
6 HOV-2 -- I'm sorry, you were running before it and then
7 you turned around to head into it --
8 CAPT. HEARN: Yes.
9 INVESTIGATOR KUCHARSKI: -- what kind of a
10 speed change did you make?
11 CAPT. HEARN: I would -- if I was -- and I
12 was typically already slowed down a little bit to try
13 to slow the ship down and get steerage, which kind of
14 sounds odd, but if she is going too fast, she just
15 can't -- she runs too quickly and you just -- you are
16 not -- you are losing steerage, so I would reduce
17 speed.
18 But when you go to turn, you want to put as
19 much water through that rudder as you can, so you would
20 increase speed again. And then you would have to slow
21 down immediately once you head into those seas and you
22 want to pound into it, so you are going -- no matter
23 what you are doing, you are going to slow the ship
24 down. You should anticipate slowing the ship down and
25 it is going to be as fast as you can safely.

1 And you don't want to rely on an
2 inexperienced engineer to manage your plant in a
3 dangerous situation like that. Because if you lose the
4 plant because you are slowing down, then you have all
5 the other issues that can happen to you. You can
6 broach. You can get in trouble with the ship. So you
7 have got to keep the plant running. That's it. I
8 mean, that's -- it's a serious situation. You don't
9 want to leave it to inexperienced people. You want the
10 best guys you have got on the ship.
11 Just like you want your best guys you got on
12 the ship securing the cargo and making sure that they
13 are getting things done right, you send the chief mate
14 out there to make sure it is done right or to keep
15 people safe. So you -- it's a team. It's a crew. You
16 put everybody together. They are on top of it
17 completely. It's not just one person working with
18 another person. It's not like that.
19 INVESTIGATOR KUCHARSKI: So again in that
20 scenario, what you were running before it somewhere
21 astern, you increase speed to gain ship control --
22 CAPT. HEARN: Yes.
23 INVESTIGATOR KUCHARSKI: -- and then slow
24 down after you head into --
25 CAPT. HEARN: To gain -- and steerage. You

1 put as much pressure on that rudder as you can while
2 you are swinging the ship to get that ship swung as
3 quickly as possible.
4 INVESTIGATOR KUCHARSKI: And how about in
5 reverse?
6 CAPT. HEARN: Because through that, you are
7 going to broach. Through that turn maybe it's not
8 coming up, but those waves are on your stern, at some
9 point, you are going to broach. And if your turn is
10 too slow depending on the size of those seas and your
11 condition, you are going to really feel it. So you
12 want to go through that motion very quickly. You are
13 going to also ship seas on that, especially on the El
14 Faro class or the Ponce Class, you are going to take
15 green water. A good chance you will take green water
16 or green sea across that deck, which can cause damage
17 to the ship.
18 If there is -- hopefully -- I would even
19 pull people in, if there is anybody on deck. You alert
20 the entire ship. The Steward Department, the Galley
21 Department, you could have guys in the galley getting
22 ready to move a turkey out of the oven or anything
23 where they could be burned or hurt. So you alert the
24 entire ship when you are doing this maneuver. It's --
25 you are going to broach temporarily and it is

1 dangerous.

2 I have done it more than 10 times. I don't

3 know how many times. I have lost count.

4 INVESTIGATOR KUCHARSKI: And is there any

5 difference going from a head sea where you are HOV-2

6 and then running before it as far as engine rpms go?

7 CAPT. HEARN: Well, once you -- if you

8 decide that you -- if you are heading into the sea and

9 you think it is coming down enough that you can turn

10 around and run with the sea again and continue your

11 voyage, like in these situations we are talking about,

12 it is still a very dangerous maneuver. You are still

13 going to broach. You are still not running with that.

14 You are still going to take that sea directly on your

15 beam, so you are going to do the same thing. You are

16 going to increase speed.

17 Typically, you are already starting to run

18 better into the sea with the ship, so she is picking up

19 speed naturally. The seas are calming down and the

20 ship is building up, on her own, speed at the same

21 amount of rpms. That's one of the first indications

22 that you are-- if you can't see -- I'm used to working

23 in the dark in Alaska where you don't have much

24 visibility.

25 So you know these things by feel and by

1 other indications with the ship. You can just feel she
2 is riding better. You are picking up speed. But you
3 are still going to go across the seas to ride with
4 them. And if you think it has calmed down enough where
5 you can run like that, and it is kind of an unnerving
6 decision because you are alone with that decision as
7 the captain. You may talk to other officers about it.
8 I typically would. Do you think we are going to run
9 okay? Is the cargo secured? Everybody ready? Here we
10 go again, we are going to broach.
11 I have probably -- I wouldn't be surprised
12 and I have tried it, we were riding too hard and I hard
13 to turn around and HEV-2 again. Because you want to
14 make your voyage and get out of there. But you do the
15 same thing, you increase speed. You swing across the
16 swell. And then you get -- you start running it.
17 Now, when you are running with it, you can
18 run with a faster ship, so you may not reduce speed. A
19 good chance you will keep your speed up and go on and
20 continue your voyage. And you will go through that
21 yawing motion that we described and discussed. And
22 depending on the ship's condition, you will feel that
23 in different ways. But that's basically how you will
24 handle it. So there will probably be an increase of
25 speed to full to get as much steerage as you can and

1 then you will go with it.

2 You may back off of that, depending on other

3 conditions once you get her going, but you want to get

4 across those waves when you make the turn. It's scary.

5 INVESTIGATOR KUCHARSKI: Were you ever --

6 CAPT. HEARN: I don't care how experienced

7 you are.

8 INVESTIGATOR KUCHARSKI: -- in a synchronous

9 roll on those ships?

10 CAPT. HEARN: I have been in synchronous

11 roll because the -- so I know exactly what that is.

12 And it is discussed on the Orca Class. The -- it was

13 not discussed and brought up and it was kind of a new

14 concept, synchronous roll, with the Ponce Class as we

15 started to understand that. We had all kinds of severe

16 weather in Alaska, so where I would see that, it would

17 be more common.

18 And there is -- when you -- that's -- if we

19 get into weather and waves, we can talk about that,

20 because we are talking ship handling. You have to

21 expect a larger swell, like 1 out of 1,000 waves. And

22 1 out of 3,000 double. So you are going to -- sooner

23 or later, you are going to hit what they call a rogue

24 wave. You have to anticipate something that may hit

25 you within the next 30 minutes and sometimes it takes

1 that long, that is more than you anticipated.
2 So that's why rough weather ship handling
3 has other factors to it than just maneuvering the edge
4 and getting people together. There is other things you
5 are anticipating like, you know, what is the weather
6 conditions that I'm expecting and is there more weather
7 coming or it always seem to calm down for 15 minutes,
8 well, it might not be over. That big wave might be out
9 there.
10 The synchronous rolling happens sometimes
11 you are in the wrong angle, especially by the bow,
12 where the ship will roll severely, not broached, but
13 she has caught a swell and maybe a second swell with it
14 that holds you over more than you anticipated. And she
15 is rolling with those waves perfectly and you can't get
16 out of it until you change heading again. So your
17 instinct will be to turn right into the wave and get
18 it.
19 And I have had it happen, because it happens
20 on the Orcas. The Ponce Class, I don't know if they
21 really have as much of a synchronous roll as they just
22 have a heavy roll if you get off that wave, so you know
23 you head into them.
24 INVESTIGATOR KUCHARSKI: How about
25 parametric roll? Have you been in a parametric roll?

1 CAPT. HEARN: What do you mean? I don't
2 even know what that really means, because I would say
3 synchronous roll is the same thing.
4 INVESTIGATOR KUCHARSKI: I'll move on then.
5 CAPT. HEARN: Okay.
6 INVESTIGATOR KUCHARSKI: You mentioned you
7 were in a broaching condition on the ships?
8 CAPT. HEARN: Yes, while temporarily
9 swinging the ship. And I have broached and in smaller
10 sea states when we lost the plant where the ship starts
11 to roll. But usually, she can handle it and of course
12 you get word through the whole crew you are dead and
13 you've got to -- it could even be a general quarter
14 situation where you alert the entire crew that you have
15 lost the plant and you are broaching, because you want
16 to make sure everybody is aware that this is a
17 dangerous situation. You may even get them altogether
18 and handle it.
19 INVESTIGATOR KUCHARSKI: Would you say there
20 were any specific type of seas on the Ponce Class post-
21 conversion to CON/RO? Any specific type of sea you
22 would avoid?
23 CAPT. HEARN: Yes. That -- the worst sea is
24 a very heavy swell on the stern, because you are --
25 that's where you are yawing very heavily. It's great

while you are running with it and you are making better speed, but you -- it's very difficult. You have to anticipate that it could get the best of you if it gets bigger and bigger.

INVESTIGATOR KUCHARSKI: And you mentioned a yaw. You mentioned a yaw a number of times. Could you explain in your own words what a yaw is?

CAPT. HEARN: Yawing is when the ship is swinging with the swell left and right, not in a rolling direction, but the stern is going to the right and then you correct it with the rudder and it goes back to the left. And then you steady the ship and another swell will pick up the stern and move it to the right again and the ship swings left to right, heading-wise. So she is yawing. That's -- so you are taking -- if you can take your pencil and just swing it on the table from around a pivot point, that's basically what the yawing action is.

And it's hard on the rudder. It's hard on the ship. And plus when you yaw, you don't have the perfect angle on those waves. They are starting to get on your stern and give you more angle so you roll a little bit more. And so you have yawing and rolling going with it and it's difficult to steer and to live with. It's a worry because you are losing control of

1 the ship.

2 Because when you are yawing, you always feel

3 like you are going to go a little bit further and

4 broach. You don't have quite the steerage that you

5 would like.

6 INVESTIGATOR KUCHARSKI: Okay. We will stop

7 there and go around the room. Any questions? Any

8 questions on the phone? Okay. Are you okay to move on

9 or --

10 CAPT. HEARN: Yeah. The only thing I can

11 say about all these things is you feel all the --

12 experienced captains would see all this at all times,

13 so you would have a little bit of a yaw, no big deal.

14 Things build up. So we are talking different levels of

15 all of this rolling, yawing, pitching, pounding, all

16 that, you know, all the motions that the ship goes

17 through, slamming. So there is some of that at all

18 times on a voyage, because it's not a static

19 environment.

20 And so this -- you know, these conditions

21 accelerate depending on the weather and the ship's

22 condition, so these forces are forces that accelerate

23 and increase. And they change and they work off of

24 each other, too. So one could change other dynamics

25 that you are dealing with on the ship. So this is --

1 that's -- not to make it complicated, but it gets
2 complex to understand and see it all at the same time.
3 That's -- you know, so I wanted to make sure
4 I got that point in there, so people get -- if I'm
5 describing these systems, they elevate. And some
6 things get worse because others are getting worse or
7 some things go away because it's no longer your
8 priority or your sense of what your real issue is that
9 you are dealing with here.
10 The number one thing is safety and it's
11 always back to that, you know, how do you protect, you
12 know, the ship that you are relying on to keep
13 everybody safe.
14 INVESTIGATOR ROTH-ROFFY: Just a follow-up
15 question to what you just said.
16 CAPT. HEARN: Yes, sir.
17 INVESTIGATOR ROTH-ROFFY: So a less
18 experienced master with heavy weather in the ship
19 handling could perhaps get himself into a worse
20 condition not understanding what -- the motions of the
21 vessel and the weather is doing to it? Is that a fair
22 statement?
23 CAPT. HEARN: It happens all the time. It's
24 a fair statement.
25 INVESTIGATOR KUCHARSKI: Okay.

1 CAPT. HEARN: It happens to a good master.
2 You can be running with the weather. You can't avoid
3 the conditions that you are in. For an experienced
4 captain, it's more of recognizing when it is starting
5 to get out hand and what do you have to do to correct
6 it or manage it, because it's a danger and even if you
7 are experienced, it's going to happen to you, you are
8 on a voyage and around weather systems. So it could
9 happen.
10 INVESTIGATOR ROTH-ROFFY: Just a second
11 follow-up, Tom Roth-Roffy.
12 CAPT. HEARN: Yes, sir.
13 INVESTIGATOR ROTH-ROFFY: Other than just
14 pure experience of having been through these sorts of
15 events, how is a master to acquire the knowledge and
16 skill to be able to properly respond to bad weather
17 ship handling?
18 CAPT. HEARN: Well, one of the things that -
19 - mentoring. Working with other captains that you have
20 worked with before that know this, even if you are not
21 with him or have been with him, you can call a guy who
22 has been on the voyage like if you are going into a
23 port you have never been to, you may talk to a guy,
24 what is it like in this port? What's the best time of
25 day to approach? What are the tugs like? Things like

1 that.

2 It's almost local knowledge. It's mentoring

3 and coaching, getting with captains that have been

4 through these situations on the run that know these

5 things. They have probably got a couple tricks up

6 their sleeve, so you want to preserve when possible,

7 that's why we end up with manual and guidelines to

8 preserve as much knowledge as we can.

9 Some of that ship handling experience and

10 knowledge is not as well-documented as it should be,

11 because I have even discussed it with Dan MacElrevey,

12 who wrote the book on shiphandling at the --

13 Shiphandling for the Mariner. We just talked about

14 this with him last month. That's the only thing you

15 can do is to start mentoring and coaching and look for

16 maybe some opportunities to see some simulator

17 training, because simulators are getting more advanced

18 now where you can at least see and kind of feel what is

19 going on, so a captain could have an idea of what he is

20 getting involved in even if he sees cargo moving on the

21 deck, because it's -- there is a feel to it also.

22 You are experiencing and you may be

23 fatigued, there is other things you can avoid, but this

24 is where you are with it. That's a fast answer to

25 that.

1 INVESTIGATOR ROTH-ROFFY: And during your
2 employment with TOTE, now, were there any formal
3 opportunities for the captains to sit down with each
4 other and kind of share experiences and lessons
5 learned?
6 CAPT. HEARN: Well, always at the turnover
7 with the previous captain you could talk to him about
8 it then. There was -- and most of us talked on the
9 phone and kept in touch that way so we shared
10 experiences. Even after retirement, I have talked to
11 guys and still do to this day actually.
12 INVESTIGATOR ROTH-ROFFY: Okay. Thank you,
13 Mike.
14 INVESTIGATOR BELL: I have a quick question.
15 Since you brought up the training, the simulator
16 training, you can rely on your experience for a lot,
17 but in terms of training, what is required and what do
18 you do? What would you do beyond what is required?
19 CAPT. HEARN: What is required is the
20 minimum standard and that's where it can -- you can
21 have a licensed master, that's the minimum standard.
22 But and what is required, it can always be specific and
23 we can -- this really broadens the subject, but ships
24 are getting more specialized today. So understanding
25 your ship is important, a passenger ship compared to a

1 tanker compared to a tugboat on the run. So these are
2 -- what is required can change depending on what kind
3 of -- type of ship you are operating.
4 And these ships are my expertise, so I know
5 them the best and I had the most experience with them.
6 But if you put me on a different type of ship, I would
7 have to learn a lot of those experiences. It would be
8 easier for me to talk to a captain that has been there.
9 I would understand the language --
10 INVESTIGATOR BELL: Um-hum.
11 CAPT. HEARN: -- of what he had experienced.
12 So I would anticipate those lessons learned. And just
13 like we have talked about other reports and things you
14 -- or knowledge, if you have experience to be able to
15 apply it and you are the kind of person that can and
16 will apply it, you may do a better job and you will get
17 the experience through the period.
18 But this is like training with anything
19 else, hands-on is always the best way to learn and go
20 backwards with it. But that mentoring is also another
21 very good way, because you have a good relationship of
22 trust. There is more information experience you can,
23 you know, transition to other people.
24 INVESTIGATOR BELL: Um-hum. So in terms of
25 like simulator training --

1 CAPT. HEARN: Um-hum.
2 INVESTIGATOR BELL: -- have you had a lot of
3 simulator training?
4 CAPT. HEARN: Not a lot, but I have had
5 simulator training, ship handling simulator training of
6 different types and different types of vessels actually
7 or I have witnessed it and been present for it. So
8 it's -- every training, every bit of training is good.
9 INVESTIGATOR BELL: Right.
10 CAPT. HEARN: And but in relying on just the
11 minimum standard is not good.
12 INVESTIGATOR BELL: All right.
13 CAPT. HEARN: Very simple.
14 INVESTIGATOR BELL: So would you say that
15 you went beyond what was required in terms of the
16 training?
17 CAPT. HEARN: No, but I was a very
18 experienced captain. And I started sailing captain
19 before they did a lot of that kind of training. And
20 what we did in those days, we spent time with other
21 captains riding with them, discussing things with them
22 and getting some of their information and they would
23 tell you all they could and it would be days of
24 talking.
25 So you would -- any topic -- and sometimes

1 we rode together anyway. There was a few of
2 opportunities for that, maybe a day or two, where you
3 spent more and more time discussing the real lessons
4 learned of the voyage, which could be anything from
5 ship handling to port management to crew handling,
6 everything.
7 But a lot of times it could specifically be
8 ship-to-ship also. Like I talked to the ship astern of
9 me and said I'm heaving, too. And he said how are you
10 riding? And I remember this very specifically and I
11 said we are doing a lot better. He said we are doing
12 the same thing. He turned around in HOV-2. So it's a
13 scary decision to do it, because you are going to
14 broach, but once you do it, it's almost a relief to be,
15 you know, out of that, you know --
16 INVESTIGATOR BELL: Um-hum.
17 CAPT. HEARN: -- unseaworthy condition of,
18 you know, a heavy yaw. These are subjects you can talk
19 and talk and talk out.
20 INVESTIGATOR BELL: Yes.
21 CAPT. HEARN: So I don't want to over talk
22 that, but I think I answered enough.
23 INVESTIGATOR BELL: I do have training as
24 something on my list of things to cover.
25 INVESTIGATOR KUCHARSKI: Does it deal with

1 ship handling? Go for it.
2 INVESTIGATOR BELL: Well, yeah, somewhat. I
3 mean, what -- something you just mentioned was talking
4 to other captains.
5 CAPT. HEARN: Um-hum.
6 INVESTIGATOR BELL: And I know within TOTE
7 it seems as though there -- a lot of times for
8 training, the captains that are coming in, they do a
9 rotation with another captain as chief mate or
10 whatever, so --
11 CAPT. HEARN: It didn't --
12 INVESTIGATOR BELL: -- I'm curious how that
13 works.
14 CAPT. HEARN: -- always happen.
15 INVESTIGATOR BELL: So was that a
16 responsibility that you have as a master if someone is
17 coming onto your ship, you have to do some training and
18 how does that work? Do you have to give -- what kind
19 of information (inaudible).
20 CAPT. HEARN: Well, normally, you would work
21 with your mates. And I did, all the officers that I
22 work with, I talk to them all the time about all my
23 decisions and hoping that they would understand it and
24 we would discuss it. And it also helped me think out
25 the process no matter what it was, safety management,

1 any type of management.

2 But ship handling too, what we are going to

3 do. And I would sometimes get a few officers together

4 and this is what we are going to do. We are in a

5 dangerous situation. We are in a heavy storm. We are

6 -- I have been through a number of different types. So

7 they get some experience there your chief mates.

8 And people that have previously been on the

9 ship, they have seen you in rough weather, they have

10 been through many storms, I went through it. The

11 captain I worked with most was a very senior

12 experienced captain when I was chief mate and he taught

13 me quite a bit. A man named Walter Chow. He retired.

14 I was opposite him and then he retired. And then I did

15 the same thing, taught other guys.

16 So that's one of the best ways to mentor and

17 bring people up through the system. If you have put

18 somebody on cold and you walk on a ship you have never

19 handled and I have had to do that a few times where I

20 went -- I flew to Singapore and got on a ship I had

21 never seen before. And the whole crew flew out there

22 and you are learning and figuring it out and it takes

23 not months, years to learn a ship and the details and

24 how she rides and what she handles.

25 You know, especially the more experienced

1 you are, the more you realize it takes a long time. It
2 takes, I would say, a year to get to know a ship pretty
3 well, because you don't get to see all those
4 experiences of rough weather, different ballast
5 conditions, different load conditions to see all the
6 different ways she will handle.
7 INVESTIGATOR BELL: Um-hum.
8 CAPT. HEARN: And wind. And then you may
9 have crew members that also add a feature to that, not
10 to make it more complicated, but it's not a simple or
11 singular system, you are relying on personnel, you are
12 relying on equipment being, you know, reliable. You
13 are relying on the weather conditions being reliable or
14 unreliable. And so these -- again, not to make it
15 complicated, but it's a complex thing. You are always
16 making decisions with whatever factor and information
17 you can put together and that ship handling is one of
18 them where it takes a while to learn that ship and the
19 situation.
20 I think most books you will read. That's
21 why when a ship comes into port they have tugboats and
22 extra people, because you are going -- now you are at a
23 contact sport and you are going along side and you want
24 to protect and defend it. You are carrying oil. You
25 have got people. You can hurt things. You do -- you

1 slow down the process to manage it.

2 INVESTIGATOR BELL: So in your opinion, in

3 terms of the amount of training you get, you have to

4 rely on your experience, but in terms of the training

5 you are getting say from AMO, what is required is that

6 enough to start out?

7 CAPT. HEARN: No. No, it depends on the

8 situation you are talking about again. But ship

9 handling is one of the big ones, because you are

10 driving, you know, the ship, whatever size it is. And

11 depending on how close it is to other dangerous

12 situations, whether it is land or a storm or other

13 ships, the more experience you have, you may know, you

14 know, how to handle those circumstances. And they are

15 -- some of them are very easy to handle and text book

16 and then there are special circumstances that are

17 described in the Rules of the Road and other things

18 that tell you to take extra precautions to manage that.

19 And the more experience you have, some of

20 those precautions are built into your thinking. You

21 know, I'm going to get people ready, machinery,

22 propulsion, cargo, if you have to make a broach, you

23 make sure your cargo is secured again. Maybe make one

24 more sweep of the ship to check any loose cargo before

25 you do that, because you know you are going to stress

1 everything. You just don't shove it off your mind. So
2 you have to be thinking for a lot of people.
3 INVESTIGATOR BELL: Um-hum.
4 CAPT. HEARN: And talking to them. And then
5 make sure that they have got the right plan and timing
6 down to keep them safe. So there is a lot to this.
7 And like I said, I'm not trying to make it complicated,
8 but to train a guy you can't just do it in a day or a
9 week. And you could have a checklist that gives you a
10 visual reminder and that sometimes is a good thing to
11 use that checklist to go down everything just in case
12 you are too tired to remember everything, but it
13 doesn't do your thinking for you and your actions and
14 even your presence and bearing of how you are giving
15 the confidence to everybody you are going to get
16 through this thing, because there is something to that
17 also. It's stressful on people.
18 INVESTIGATOR KUCHARSKI: Okay. I would like
19 to bring it back into ship handling. Carrie, do you
20 have any more questions on ship handling?
21 INVESTIGATOR BELL: No.
22 INVESTIGATOR KUCHARSKI: Okay. Because we
23 can handle training. Jack, I do have a question for
24 you on ship handling. The AMO -- you went to Advanced
25 Ship Handling courses?

1 CAPT. HEARN: Yes, at the AMO.
2 INVESTIGATOR KUCHARSKI: At AMO?
3 CAPT. HEARN: Um-hum.
4 INVESTIGATOR KUCHARSKI: Do they have heavy
5 weather ship handling, handling a ship, do they treat
6 that in that -- the ship handling service?
7 CAPT. HEARN: No. It was all close
8 quartership handling, the training that I had there.
9 INVESTIGATOR KUCHARSKI: Have you been
10 through any other simulations outside of AMO?
11 CAPT. HEARN: Yes.
12 INVESTIGATOR KUCHARSKI: Were they for
13 advanced ship handling?
14 CAPT. HEARN: Actually, it was just I went
15 to some training facilities, because I'm involved with
16 the APMA and we -- they showed me motion of the vessel
17 and how these simulators are getting more
18 sophisticated. So you could see that -- you actually
19 feel like you are rolling. You feel like you are
20 pitching, so you have some sense of that. You don't
21 feel the vibration in the platform you are on, but you
22 can see it and it gives you the perspective.
23 INVESTIGATOR KUCHARSKI: Do you know --
24 okay. It gives you a sense, this is Mike Kucharski,
25 sorry. Does -- did -- were you aware of those other

simulators if they had any specific training for handling the ship in heavy weather just as opposed to getting a sense of being in a room?

CAPT. HEARN: I think that they may have a sense of yawing, you know, and rolling.

Now, is it enough for heavy weather? I don't know, but there is some of that where you don't have -- you know, you can feel the vessel rolling. You can see it moving, you know, as its on a steady course and you are correcting it with the rudder. So there is some of that available.

INVESTIGATOR BELL: APMA?

CAPT. HEARN: American Professional Mariners Association.

INVESTIGATOR BELL: Thank you.

INVESTIGATOR KUCHARSKI: Any other questions on ship handling related around the room?

MR. [redacted] Yes, [redacted] [redacted] Coast Guard.

INVESTIGATOR KUCHARSKI: Yes, [redacted] go ahead.

MR. [redacted] Captain Hearn, at the time you last worked for TOTE, there were probably perhaps as many as 10 masters in play on the Alaskan Run, the relief captains and the Puerto Rican Run captains. How

1 did TOTE make sure that the masters that worked for
2 them were competently handling the ships in all weather
3 conditions? How did they give you feedback?
4 CAPT. HEARN: Well, that had changed over
5 the years. When I was in Alaska, it was weekly working
6 with the people on that -- in that environment. We
7 talked about it all the time and a lot of it will be
8 looking at damage, the success of the voyage, the --
9 and sometimes they would talk to other officers, in
10 particular senior officers, like the chief engineer and
11 chief mate, so they would get an assessment of the
12 captain that way. It was a little bit more difficult
13 on the Puerto Rico Run, because you didn't have those
14 conditions and the company handled it differently down
15 there.
16 MR. [redacted] Okay. With regard to, you
17 know, the ship handling to take the ship from Point A
18 to Point B, that's what I'm calling ship handling, did
19 you see a major change in the way SeaStar -- like when
20 you first started with them on the, you know, Puerto
21 Rican Run to how they might conduct assessments or how
22 that voyage was handled and then over a course of time
23 that maybe changed where they paid less attention to
24 that?
25 CAPT. HEARN: Yes, I did.

1 MR. [redacted] And what could you attribute
2 that to?
3 CAPT. HEARN: There was a change in
4 management and they were going in a different
5 direction.
6 MR. [redacted] Okay. I'll follow-up more
7 perhaps when we get to the personnel side, but thank
8 you very much.
9 CAPT. HEARN: Yes, sir.
10 INVESTIGATOR KUCHARSKI: Thanks, [redacted]
11 This is Mike Kucharski. Yeah, we do have that under
12 management, but those are all points well-taken.
13 Captain Hearn, Jack, you said weekly you
14 would discuss.
15 CAPT. HEARN: In Alaska, yes. The --
16 INVESTIGATOR KUCHARSKI: Was it someone at
17 Shoreside that you would discuss that with?
18 CAPT. HEARN: Yes.
19 INVESTIGATOR KUCHARSKI: Who was it at
20 Shoreside?
21 CAPT. HEARN: Bob McGee.
22 INVESTIGATOR KUCHARSKI: Who was Bob McGee?
23 CAPT. HEARN: Bob McGee, yes, excuse me,
24 sir. Shoreside in TOTE Alaska for many years was Bob
25 McGee, Rich Griffith, Phil Morrell was there later when

1 I left and the port engineers and a few -- had trouble
2 on the voyage, cargo damage, you were late, which was
3 typical. It was not uncommon to discuss with personnel
4 the conditions of the voyage, what you were getting
5 prepared for, why you were late, how it was. They
6 would also call you by satellite phone during the
7 voyage.
8 So weekly could even be daily or several
9 times a day. And also there was an expertise up there
10 with weather conditions and discussion of the voyage
11 and how to manage it.
12 INVESTIGATOR KUCHARSKI: Do you recollect,
13 this is Mike Kucharski, who called you on the satellite
14 phone to talk about the weather?
15 CAPT. HEARN: Yes. I talked to Bob McGee,
16 Rich Griffith, Tor Christianson, Arnold Strand
17 (phonetic), I guess everybody. I know speaking to them
18 for years.
19 INVESTIGATOR KUCHARSKI: And on the --
20 CAPT. HEARN: On the Alaska end, Terry
21 Spielman was the guy that I spoke to the most, but
22 whoever, if there was a duty officer that I couldn't
23 get to Terry, it would be somebody else.
24 INVESTIGATOR KUCHARSKI: Okay. Any other
25 questions on the phone regarding ship handling?

1 MR. [redacted] [redacted] [redacted] back with the
2 Coast Guard. Captain Hearn, Mr. McGee and Mr. Griffith
3 have both passed away. Is that correct?
4 CAPT. HEARN: Yes, sir. Just Mr. Griffith
5 just passed away recently, I heard, and Mr. McGee has
6 been dead for a number of years now.
7 MR. [redacted] Okay. Thank you, sir.
8 INVESTIGATOR ROTH-ROFFY: Tom Roth-Roffy.
9 So the books that you mentioned that had the expertise
10 in weather and whatnot, what were their backgrounds?
11 Were they former mariners? Were they engineers? Were
12 they --
13 CAPT. HEARN: Mr. McGee and Mr. Griffith?
14 INVESTIGATOR ROTH-ROFFY: And others you
15 mentioned that had this expertise of overseeing.
16 CAPT. HEARN: Well, that TOTE Alaska
17 expertise was -- with heavy weather is -- was very
18 good. Bob McGee was the new manager of operations when
19 I joined the company. I was a chief mate. And that
20 accident that I mentioned when we were talking about
21 cargo equipment and lashing happened when he was with -
22 - I think within his first year.
23 They started to work very hard at safety and
24 innovation to correct and make it a safe operation.
25 That was so they -- there was a lot of discussion about

it. And the lashing, the roloc boxes, the securement, if we found problems, they were acted on. They started the transition to innovate the trailers, the containers and reduced damage.

So I know that Bob eventually became the head, the president of the company and a leader in the industry. But for us, he was hands-on with the operation and I worked with him closer over many of those years to discuss these things.

And Rich Griffith had been out of the company and he came back in that same capacity. And he was involved in design of the roloc box. He knew the cargo system very well and was protective of the reliability of the ships on the voyage and the cargo and the protecting of the cargo to be reliably delivered, because it's a very difficult voyage up there. You always can expect rough weather, especially through the winter.

And so it was something we worked on all the time, like that continuous improvement type of management.

INVESTIGATOR ROTH-ROFFY: Thank you.

CAPT. HEARN: Yes, sir.

INVESTIGATOR KUCHARSKI: Well, I would like -- excuse me, this is Mike Kucharski. Do you know what

1 Bob McGee's background was?

2 CAPT. HEARN: Yes, I'm sorry. Bob McGee's
3 background was he was a graduate of U.S. Merchant
4 Marine Academy, I think, around 1969. And he sailed
5 for a few years, worked in the shipyard for a few years
6 where they had built the ships, that class of ship, so
7 he had seagoing experience for a few years. And then
8 he had ship construction experience and repair
9 experience or at least construction and hands-on
10 building experience.

11 And then he went into operations ashore and
12 he was with Puerto Rican Marine with the same class of
13 ship going to Puerto Rico and then he transitioned to
14 TOTE Alaska and he came into Tacoma. And he finished
15 his career there as a senior officer in the company.

16 And Rich Griffith was a civil -- not a
17 civil, a mechanical engineer that graduated -- I think
18 he went to one of the colleges in the Philadelphia
19 area, because I know he is from the Philadelphia area.
20 He was with the shipyard also and involved in the
21 design section and was involved with the design of the
22 roloc box. He knew the ships. He knew the propulsion
23 system, the strut system that held onto the shafting
24 the rudders intimately. He was one of the best
25 engineers in the company with that.

1 And he was always present as a consultant
2 when he wasn't there later as a manager again or
3 returning as a manager to supervise those, the
4 management of those systems whatever it might be, cargo
5 or engineering.
6 INVESTIGATOR KUCHARSKI: Mike Kucharski
7 back. Bob McGee, deck engine, do you know?
8 CAPT. HEARN: Bob was a deck officer --
9 INVESTIGATOR KUCHARSKI: Deck officer.
10 CAPT. HEARN: -- in training. Rich was an
11 engineer by training. Rich was not a marine engineer.
12 He was not a ships engineer.
13 INVESTIGATOR FURUKAWA: Jon Furukawa, NTSB.
14 So Rich Griffith, you talked to him about weather?
15 CAPT. HEARN: Yes. If we -- we would talk
16 about everything about, you know, the ship and the
17 system, but if we had weather conditions, we would
18 discuss it. Absolutely.
19 INVESTIGATOR FURUKAWA: Okay. I think you
20 made a comment that on the Alaskan TOTE there was
21 experts in weather that you could talk to or would call
22 you up. How about with the Puerto Rican Run?
23 CAPT. HEARN: No, not really.
24 INVESTIGATOR FURUKAWA: No.
25 CAPT. HEARN: No. The -- when I first went

1 to Puerto Rico, some of the officers ashore, I mean,
2 Bill Weisenborn had been there for a number of years.
3 He is another Kings Point graduate, so he understood
4 ship operations and weather. He was very good to talk
5 to and he was there for a number of years and then he
6 left the company. And after he left, there wasn't
7 really as much experience there to discuss things like
8 that with.
9 So we relied a little more on, back then it
10 was, Interocean American, Harry Rogers was the
11 operations manager, I would talk to him about it if I
12 had any issues that I couldn't clearly deal with
13 SeaStar and I felt that I needed help trying to get
14 some kind of management discussion going, but it wasn't
15 somebody that I would reach out to unless it was more
16 of a -- because he wasn't involved in the day-to-day
17 operations.
18 INVESTIGATOR FURUKAWA: Was that a TOTE
19 company?
20 CAPT. HEARN: It's a TOTE company, yes. Now
21 it is called TOTE Services.
22 INVESTIGATOR FURUKAWA: Okay.
23 CAPT. HEARN: They are a management company
24 for the ships' personnel.
25 INVESTIGATOR FURUKAWA: Okay. So that was

about it for people that you could talk about weather to?

CAPT. HEARN: When I was with the company, yes, those are the people that I dealt with. It was kind of the history. It's a long history. It's hard to narrow it down to what happened, but that's a little bit of an overview.

INVESTIGATOR FURUKAWA: Okay. Okay. Thank you.

CAPT. HEARN: Yes, sir.

INVESTIGATOR KUCHARSKI: On the phone? Okay. This is Mike Kucharski. Jack, do you want to take a break or do you want to keep rolling through?

CAPT. HEARN: I could use a few minutes to get a cold drink, if you don't mind.

INVESTIGATOR KUCHARSKI: Okay. Let's take five. Is that enough for everyone? Five? Okay. On the phone, we are going to put you on mute and hopefully I won't disconnect you. And we will come back in five minutes.

MR. MILLAR: Thanks, Mike.

INVESTIGATOR KUCHARSKI: Thank you.

(Whereupon, the above-entitled interview went off the record at 2:58 p.m. and resumed at 3:06 p.m.)

1 INVESTIGATOR KUCHARSKI: Can everyone hear?
2 We are back on the line and it is Mike Kucharski, a
3 little bit after 3:00, about 3:06. Can you hear us on
4 the line?
5 MR. [redacted] Roger that, Mike. We gotcha.
6 INVESTIGATOR KUCHARSKI: Thanks, [redacted]
7 MR. MILLAR: Gotcha, Mike.
8 INVESTIGATOR KUCHARSKI: Okay. Thanks,
9 Mike.
10 MR. MILLAR: Yep, I'm here.
11 INVESTIGATOR KUCHARSKI: Eric, Lee, are you
12 there, the TOTE party?
13 INVESTIGATOR STOLZENBERG: Yes, we're here,
14 Mike.
15 INVESTIGATOR KUCHARSKI: Okay. Thank you.
16 I would like to --
17 MR. STITH: Kevin Stith.
18 INVESTIGATOR KUCHARSKI: Kevin, thank you.
19 Thank you. I would like now to move into engineering.
20 And, Jack, I know Mike [redacted] asked you a
21 follow-up question about engineering and propulsion
22 problems during your broach.
23 CAPT. HEARN: Um-hum.
24 INVESTIGATOR KUCHARSKI: Propulsion
25 problems. Did you -- is there anything you wanted to

1 add to that or you --

2 CAPT. HEARN: Well, I didn't have propulsion

3 problems during broach. I had a propulsion experience

4 during, you know, that kind of a situation when you are

5 making the turn. And it's a critical maneuver. It's

6 as critical as docking a ship. You are going to rely

7 on your propulsion system to protect the ship out of

8 the following sea across the heavy swell and then into

9 it. And you can't lose the plant and you can't lose

10 steerage. You've got to make the maneuver.

11 So you -- and things can go wrong. When the

12 ship starts to roll, they can have alarms down there of

13 different types and I don't want to speak for

14 engineering, but they have got to be able to handle

15 that through the turn and the ship is going to be

16 rolling and difficult, so the more hands and people

17 around if they are stationed or where they need to be,

18 they are there, including the fact that somebody could

19 fall and get hurt and there is somebody there to help

20 them.

21 So you can't just do it with a couple of

22 people in those critical areas. They often brace and

23 be prepared for it and then go. So they are going to

24 brace themselves. They are going to know the ship is

25 going to roll. The galley will know the ship is going

1 to roll. And you prepare for it.
2 INVESTIGATOR KUCHARSKI: While you were on
3 the Ponce Class vessels on the Puerto Rican Run, did
4 you have/experience any overall problems with the
5 propulsion equipment as opposed from power generation?
6 I would just like to stick with propulsion.
7 CAPT. HEARN: No problems other than the
8 routine life of the ship. You know, things get older
9 and they've got to be fixed or repaired or updated, but
10 there was never -- there is no such thing as a
11 limitation I would say in that class of ship that was
12 extraordinary. There is the normal limitations of the
13 ship.
14 INVESTIGATOR KUCHARSKI: How about with
15 power generation, any overall problems with power
16 generation?
17 CAPT. HEARN: No.
18 INVESTIGATOR KUCHARSKI: Did you ever lose
19 the plant to where you had to go on emergency power on
20 any of the Ponce Class vessels?
21 CAPT. HEARN: Yes.
22 INVESTIGATOR KUCHARSKI: Could you elaborate
23 on that, please?
24 CAPT. HEARN: Yes. Actually the El Faro.
25 One of the last times I took it to see, we lost power

offshore. It was a generator problem that was fixed in a few hours. And I think it was an exciter, but we lost the plant immediately and went black. Went on emergency power. They repaired it and it took a few hours, but they got it going again. They brought the plant back up again.

I lost a plant on the Alaska Run with that same class. The more typical was boiler problems, losing the plant. Especially if a tube blew out and the engineers couldn't handle it quick enough to keep the plant, they would lose it temporarily.

I had one other time when I lost the plant. Actually, we didn't lose the plant. We lost control of the plant. And that was in Puget Sound, but we got control again and continued the voyage. It was just a mechanical failure that led to a control issue that they had -- they couldn't even find the problem. It took a while because you think it's an electronic problem, but it was a mechanical problem. They were looking at the electronics and the controls first, so it took a while to troubleshoot.

And I have lost a plant at the dock even. The same thing, boiler problems.

INVESTIGATOR KUCHARSKI: Did you ever lose propulsion on any of the Ponce Class vessels?

1 CAPT. HEARN: When you lose the plant, you
2 lose propulsion.
3 INVESTIGATOR KUCHARSKI: Did you ever lose
4 propulsion and still maintain the plant on the Ponce
5 Class vessels?
6 CAPT. HEARN: That time when we had a
7 mechanical issue, it was a control issue. It was hard
8 to troubleshoot. We had no propulsion. We had the
9 plant. But it was a mechanical failure and a linkage
10 of the throttle control, is what I remember. It was a
11 long time ago. I know Barney Ross was the chief
12 engineer and he had a bunch of young engineers with him
13 and he went down and figured it out.
14 But we were on -- we had the emergency
15 system running just in case we lost propulsion. I had
16 people standing by the anchors in case I needed to
17 anchor the ship. We were drifting in deep water, so
18 the anchors wouldn't do me much good, but I didn't want
19 to get to shallow water. And the same thing, you get
20 the whole crew together. You get everybody together.
21 It's a general quarter situation, it's an emergency.
22 But we had the plant.
23 INVESTIGATOR KUCHARSKI: And that was in
24 Puget Sound?
25 CAPT. HEARN: It was in Puget Sound. And I

1 lost a plant outside a couple of times.
2 INVESTIGATOR KUCHARSKI: Did you ever hear
3 of any of the Ponce Class vessels losing propulsion in
4 any of the trades?
5 CAPT. HEARN: Losing propulsion?
6 INVESTIGATOR KUCHARSKI: Losing propulsion.
7 CAPT. HEARN: No. None of the five that I
8 have worked with, unless they lost the plant also. And
9 you would almost say it's the same word. You know, you
10 lose the plant, you have lost propulsion.
11 INVESTIGATOR KUCHARSKI: Were you aware of
12 any issues with the El Faro strut seal?
13 CAPT. HEARN: Yes. The struts had a, you
14 could call it, chronic problem, but it wasn't. It was
15 getting better. It was technology. But they had a --
16 they wear and the struts would possibly leak oil into
17 the environment, which is something that you don't want
18 to do. But so it was always something that would work
19 on us, you know, to keep an eye on that strut bearing
20 and the seal and the oil levels to be, you know,
21 familiar or aware. And they would test the oil to see
22 if there was any kind of wear or materials in the oil
23 that was going to show an indication that it was going
24 to fail soon, so we could do something about it or
25 prepare to do it in the shipyard.

1 INVESTIGATOR KUCHARSKI: Any follow-on
2 questions to that line of questions?
3 CAPT. NEUBAUER: Yes, sir. Jason Neubauer,
4 Coast Guard. Jack, do you know if -- thinking about
5 the loss of power on the El Faro for the couple hours
6 that you referenced, do you know did the company submit
7 a Coast Guard 2692?
8 CAPT. HEARN: I did.
9 CAPT. NEUBAUER: You did?
10 CAPT. HEARN: Yes, sir.
11 CAPT. NEUBAUER: And that was about the 2012
12 time frame?
13 CAPT. HEARN: Yes.
14 CAPT. NEUBAUER: Is that right? Thank you.
15 CAPT. HEARN: Yes. You have seen it.
16 That's it.
17 CAPT. NEUBAUER: I was -- I just wanted to -
18 - was the company pretty good about that, if you had a
19 --
20 CAPT. HEARN: They were, yes. Harry Rogers
21 and I discussed it. They were -- you could almost say
22 they were militant about it. You had to get that
23 report in.
24 CAPT. NEUBAUER: Thank you. That's all I
25 have.

1 INVESTIGATOR FURUKAWA: Jon Furukawa, NTSB.
2 INVESTIGATOR KUCHARSKI: Speak up, Jon,
3 please.
4 INVESTIGATOR FURUKAWA: Yes. So when you
5 lost the power, that was just one time on the El Faro?
6 CAPT. HEARN: Well, I remember that time
7 losing the plant. I probably lost the plant a couple
8 of other times on the ships, you know, where it was a
9 temporary loss of power. And if it was, there would be
10 a report on it with the Coast Guard or should be, going
11 back to the days when it was the Northern Lights,
12 because I can't imagine not, you know, submitting it.
13 INVESTIGATOR FURUKAWA: Okay.
14 CAPT. HEARN: But I lost the plant a number
15 of times on a number of ships or lost power, you know,
16 and so it's not something that is uncommon for me. I
17 know what to do or think about. But the first thing
18 you have to do is let the engineers troubleshoot.
19 INVESTIGATOR FURUKAWA: Okay.
20 CAPT. HEARN: And then be patient. But you
21 also have to report it in case you need to get help.
22 The team extends from the ship to also getting
23 Shoreside people ready in case you have other issues
24 depending on the environment in a situation. So I
25 would definitely involve other people.

INVESTIGATOR FURUKAWA: Okay. And you are a master of the same ship, from Northern Lights conversion to El Faro?

CAPT. HEARN: Yes.

INVESTIGATOR FURUKAWA: Did it happen more on the El Faro then Northern Lights or about the same?

CAPT. HEARN: The propulsion system was pretty good on the El Faro when I was with it. The -- especially when I first got on, it had just been converted from the shipyard. They had put some money into it. The engineers were experienced and good. The ship laid up in 2009 and the engine -- they kept a crew on there and they did a tremendous amount of work on the boilers and the ship itself, so it was fairly reliable while I was with that ship.

INVESTIGATOR FURUKAWA: Okay. Were the engineers --

INVESTIGATOR KUCHARSKI: Jon, yell.

INVESTIGATOR FURUKAWA: For the engineers, earlier I heard you say something about experience of the engineers on the Alaska Run was pretty good. And I'm --

CAPT. HEARN: It was outstanding.

INVESTIGATOR FURUKAWA: And now I'm also hearing that the conversion, the engineers after the

1 conversion were pretty good, too?

2 CAPT. HEARN: Yes. While I was with the

3 ship, the engineers were mostly SeaStar regulars that

4 had been promoted up through the ranks. For example,

5 Mark Gay (phonetic), Jim Robinson, I worked with them

6 on that ship for the most part.

7 INVESTIGATOR FURUKAWA: Okay. Has the

8 experience of engineers changed over time on the --

9 CAPT. HEARN: Well, we were losing some of

10 our more experienced engineers later towards the end of

11 my time with the company. Mark Gay left, Bruce Keller

12 left the company, so that we were losing a couple of

13 them and we also lost, I think, a couple of first

14 engineers that moved on.

15 INVESTIGATOR FURUKAWA: Is this through age,

16 retirement or?

17 CAPT. HEARN: No, they moved on to other

18 employment.

19 INVESTIGATOR FURUKAWA: Other companies.

20 Let's see, and also for the engineers, you know,

21 steamships, there's not as many steamships.

22 CAPT. HEARN: Right.

23 INVESTIGATOR FURUKAWA: What about the age,

24 the age of the ship being 40 years-old?

25 CAPT. HEARN: Um-hum.

1 INVESTIGATOR FURUKAWA: Did that affect the
2 quality engineers, the systems?
3 CAPT. HEARN: The company was pretty good
4 about keeping the system updated. There was a couple
5 of people that knew the system very well. There was a
6 man named Norris that used to work on it, Richard
7 Norris. And he knew a lot of the automated systems on
8 there and so they had some regular people that knew the
9 propulsion system and the auxiliary systems.
10 Lee Peterson, who is listening, also was an
11 experienced engineer, knew the systems and how to, you
12 know, get the best out of it. And that was an
13 important thing to work on that reliability as much as
14 possible. So those are the key people. And then the
15 senior engineers that had experience with the ships,
16 they -- like that troubleshooting experience that we
17 had, a senior engineer is going to do the
18 troubleshooting or the problem solving.
19 And those port engineers will work with them
20 or the guys like Dick Norris to -- if they are going to
21 the next level or technology has changed where it is no
22 longer available and they would upgrade it. And
23 sometimes you have to because parts aren't available
24 any more and they would -- that was their area of
25 expertise to manage. And for the most part, they were

on top of it all the time.

INVESTIGATOR FURUKAWA: Okay. When you retired from TOTE you were satisfied with the quality of engineers down in the engine room. Is that a fair statement?

CAPT. HEARN: I have to think about who I was working with at the time, because when I left I was on the El Morro, a different ship. Jim Robinson was on there. He is an excellent engineer, a very hard worker. I'm trying to remember who replaced Mark Gay, because Mark is also an outstanding engineer and had been with SeaStar for over 10 years.

And that 10-year threshold is -- you really start to see it in an engineer, because they have a lot of experience through shipyards, repairs. They see the interior of the systems. They get a much more intimate perspective than just an operating engineer that has been on there to just run it.

I can't remember the other chief, because Chuck Nevis (phonetic) had left the ship. For the most part, I would have to say I'm satisfied with the engineers I worked with. I got along with all of them.

INVESTIGATOR FURUKAWA: Thank you very much.

CAPT. HEARN: Yes, sir.

INVESTIGATOR ROTH-ROFFY: Tom Roth-Roffy,

1 NTSB.

2 CAPT. HEARN: Yes, sir.

3 INVESTIGATOR ROTH-ROFFY: Just to continue

4 on the engineering a little bit more, you sailed on all

5 three of the vessels down in Puerto Rico?

6 CAPT. HEARN: All, yes.

7 INVESTIGATOR ROTH-ROFFY: And from your

8 recollection, was there any significant differences in

9 terms of plant reliability or general upkeep or

10 maintenance issues on the vessels that you can recall?

11 CAPT. HEARN: Most of the engine -- most of

12 the propulsion systems on all three ships were in

13 outstanding condition. The engineers were good and you

14 could -- if you walked into the engine room, you could

15 see it immediately. They were painted, maintained,

16 kept clean. The engineers knew the system, especially

17 the senior guys that had been there for a number of

18 years.

19 The other difference? The only -- some of

20 them had different size condensers, which might create

21 a limitation that the engineers would be more familiar

22 with than us. And but it was significant -- they would

23 be to us insignificant, but to them it was significant,

24 because they are dealing with that system. And there

25 might be other smaller systems whether it was oily

1 water separator or the bilge and ballast arrangement,
2 how it was labeled and managed over the years, some of
3 them were a little bit better, so there were small
4 details to these ships, but for the general observer,
5 including a captain, it would be more or less
6 insignificant for us, but for them it was important.
7 INVESTIGATOR ROTH-ROFFY: And if you were to
8 go on -- say you were to be assigned to one of these
9 vessels, if you received an assignment to one of them,
10 would you -- let me rephrase that.
11 Some ships have reputations that kind of
12 carry them through their lives for whatever reason.
13 Did any of these vessels, the three down in Puerto
14 Rico, have a particular good or bad reputation that
15 would perhaps lead you to, you know, either desire to
16 be on it or conversely not to want to be assigned to
17 it?
18 CAPT. HEARN: Yes.
19 INVESTIGATOR ROTH-ROFFY: Could you describe
20 that, please?
21 CAPT. HEARN: Well, the El Faro was good.
22 The El Morro was not as good. It had maintenance
23 problems and deck and some repairs that needed to be
24 done and some things had been outstanding and hadn't
25 been caught up with. The El Yunque was in between, but

1 it was a very good crew on the El Yunque and they had -
2 - they blended better on the El Yunque. In fact, it
3 was a very cohesive ship.
4 The El Faro was the ship that I had the most
5 experience with and I kept getting moved back to the El
6 Faro. I actually tried to transfer to the El Yunque,
7 but they kept putting me on the El Faro, because I had
8 such familiarization with it. But they kept laying it
9 up. I didn't want to get laid up any more.
10 So there is -- that's my experiences, you
11 know, working with guys, but it didn't matter to me who
12 I worked with. There was nobody in particular on all
13 those ships. I liked all those guys. They were all
14 agreeable to work with. I didn't -- there was no one -
15 - there was no personality with crew or especially
16 officers.
17 The unlicensed personnel predominately came
18 from either San Juan or from Jacksonville. I knew a
19 lot of them. I didn't have any issues with any of the
20 guys there. I liked both ports and crewing up in both
21 ports, the personnel in both ports. So there was no
22 personality that I wanted to avoid. You know, I was
23 willing to work wherever I was sent and do the best I
24 could with it. But I'm a seaman, put me on a ship,
25 I'll deal with it.

1 I don't know if that answered your question.
2 INVESTIGATOR ROTH-ROFFY: Yes.
3 CAPT. HEARN: Okay. Good.
4 INVESTIGATOR ROTH-ROFFY: Quite amply. So
5 did you have any personal history with Captain
6 Davidson?
7 CAPT. HEARN: He relieved me on the El Morro
8 when I left the company. That's the only time I ever
9 met him and I transitioned with him that day for about
10 an hour and then I -- he called me by phone a couple of
11 times for some questions and then I never spoke to him
12 again.
13 INVESTIGATOR ROTH-ROFFY: Thank you.
14 CAPT. HEARN: Yes, sir.
15 INVESTIGATOR ROTH-ROFFY: That's all I have.
16 CAPT. HEARN: You're welcome, sir.
17 INVESTIGATOR KUCHARSKI: Captain?
18 CAPT. NEUBAUER: Jason Neubauer, Coast
19 Guard. So you mentioned the relationships with the
20 crew members. How about the relationships with the
21 Shoreside management? I'm talking about probably the
22 year on the El Morro before you departed the company.
23 Would you say the support was good? And were there any
24 relationship issues?
25 CAPT. HEARN: Well, I had relationship

1 issues at the end.

2 CAPT. NEUBAUER: Okay.

3 CAPT. HEARN: With the El Morro.

4 CAPT. NEUBAUER: With the El Morro. And

5 what did that stem from? Could you go into that a

6 little bit?

7 CAPT. HEARN: Yeah. It's -- I mean,

8 truthfully, it was a difficult relationship with

9 management.

10 CAPT. NEUBAUER: Okay. Was it -- was there

11 a lack of support for like things that you needed on

12 the El Morro or was it something else?

13 CAPT. HEARN: Well, actually, both. Towards

14 the end there was some support issues. Some of it was

15 budget, some of it was repair with the ship and getting

16 it done in a timely manner and reporting and how that

17 would be done. And it turned into quite a bit of

18 involvement with TSI and TOTE, SeaStar and TOTE on the

19 west coast were all involved, because it was a

20 complicated issue. A lot of work to be done.

21 CAPT. NEUBAUER: So did you have to defer a

22 lot of maintenance or work that you felt had to -- was

23 more urgent? Is that --

24 CAPT. HEARN: Well, I submitted all of it to

25 the company and then I just kept on submitting it. And

1 most of it was getting repaired, but it took quite a
2 bit of time, because it was quite a bit of work to do.
3 And some of it had to be deferred to the shipyard
4 because it was that big.
5 CAPT. NEUBAUER: Thank you. That's all I
6 have.
7 INVESTIGATOR KUCHARSKI: This is Mike
8 Kucharski. Jack, were those deck-related items or were
9 they engine-related items or what kind of items?
10 CAPT. HEARN: Well, most deck. Actually,
11 deck safety, that was -- cargo, cargo securement.
12 There was quite a bit of worn out material on that
13 ship, on the El Morro, that I was dealing with that
14 last year. And I had just -- I was new to the El
15 Morro, so I didn't know the ship that well. I joined
16 it and I found that I reported it and submitted to the
17 company and asked for repair. But it was during some
18 difficulties there.
19 INVESTIGATOR KUCHARSKI: So the El Morro was
20 in, would you say, worse shape than the El Faro was?
21 CAPT. HEARN: Yes, it was. By comparison to
22 those, I couldn't have said the same thing about the El
23 Faro. The El Faro was -- did not have those issues.
24 INVESTIGATOR KUCHARSKI: Carrie?
25 INVESTIGATOR BELL: Carrie Bell, NTSB. You

1 mentioned the lack of support. Were you specifically -
2 - regarding management there toward the end, are you
3 specifically referring to El Morro or was this all of
4 the ships that you were on?
5 CAPT. HEARN: No. And it was transitioning
6 towards the end of the ships' lives. It was -- you
7 could -- I know they were getting ready to build new
8 ships. They were talking about it. There was a
9 discussion. The El Faro was originally laying up with
10 a man group to maintain it towards the end. They took
11 people off. They didn't -- they laid it up without
12 anybody to maintain it. So that was a change.
13 The El Morro when I went on-board it needed
14 some repairs and structural repairs, steel repairs,
15 some cargo lashing equipment repairs and some safety
16 equipment deficiencies. And it took about a year to
17 get them done. The ABS was on-board quite a bit to
18 inspect and to supervise. But there was -- with it,
19 there was conflict with the company. You know, some of
20 it was uncomfortable, some of it was routine.
21 And some people were very good to work with
22 and others were not as comfortable with, so it's a
23 tough subject.
24 INVESTIGATOR BELL: Thank you.
25 INVESTIGATOR KUCHARSKI: On the telephone,

1 are there any questions?

2 MR. [redacted] Yes. [redacted] [redacted] Coast

3 Guard. Captain Hearn, talking about marine propulsion

4 casualties, steering gear issues, stern-bearing and so

5 forth and then looking at -- you talked about earlier

6 that the company was almost militant about reporting to

7 the Coast Guard. You mentioned Harry Rogers and -- you

8 know, and I guess that would be -- am I right in saying

9 that they had aggressive policy to do these reports for

10 engineering casualties?

11 CAPT. HEARN: Well, Harry Rogers was very

12 good about it, but there were other managers that were

13 different about it because it was -- you know, you have

14 to bring this up. It was questionable whether it was

15 reportable or some other -- you know, there is more

16 complications to each issue depending on what we are

17 talking about here. But Harry Rogers was an officer

18 with the company that was kind of militant about making

19 sure it went to the Coast Guard.

20 MR. [redacted] The operation manual for

21 vessels, which was revised in 8/15, contains an entry

22 which deals with reporting to the Coast Guard. And

23 I'll read it to you and I will just ask if it mirrors

24 your experience when you were with the company or it's

25 somehow different in the operations philosophy of the

1 company.

2 They say "Rather than go through the

3 heartache and aggravation of dealing with the Coast

4 Guard's mandatory $5,000 penalty for non-reporting, it

5 only takes five minutes to complete the initial

6 notification form. For minor incidents or injuries,

7 TSI recommends that the "remarks section" contain

8 verbiage that puts the ball back in the Coast Guard's

9 court, i.e., 'This is a minor incident that does not

10 rise to the level of 2692 reporting.' The vessel does

11 not anticipate any further correspondence on this topic

12 unless the situation changes for the worst."

13 And then it says "Now, we are all off the

14 hook!" Is that the philosophy you experienced when you

15 worked for the company that would be contained in

16 something like this operations manual vessel or was

17 there a change?

18 CAPT. HEARN: That seems to be a little bit

19 of a change. My experience was when you had a

20 reportable or any issue, but we will talk about the

21 reportable issues for the Coast Guard, I would first

22 contact the company about it and we would discuss how

23 it was going to be reported.

24 MR. [redacted] Okay. Thank you, sir.

25 CAPT. HEARN: Yes, sir.

1 INVESTIGATOR KUCHARSKI: On the --
2 INVESTIGATOR BELL: I have one more
3 question.
4 INVESTIGATOR KUCHARSKI: I'm sorry. Carrie?
5 Yes.
6 INVESTIGATOR BELL: Carrie Bell, NTSB.
7 Related to the safety repairs and the maintenance
8 issues and things of that nature, any time when you
9 were getting underway, were you ever concerned about
10 safety in terms of being able to maintain? You know,
11 the ship is not being maintained to the -- your
12 standards perhaps. Was that ever a concern?
13 CAPT. HEARN: With the El Morro a couple of
14 times it was.
15 INVESTIGATOR BELL: With the El Faro was it
16 ever?
17 CAPT. HEARN: The El Faro, I was always on
18 top of that. I don't remember anything offhand. There
19 may have been something that was like, for example, the
20 boilers might be needing maintenance or the propulsion,
21 the fuel system might be, you know, questionable. They
22 are going to rebuild a pump as soon as they can. So
23 there might be a concern that you are watching, but I
24 don't remember anything -- any mismanagement there, any
25 concern that we were close.

1 If it was, it would be something that I
2 would include in my Voyage Plan, you know, to be -- for
3 safety and management with the engineers. Because, you
4 know, we are normally within the law of it or within
5 the reasonable expectation that this is a serviceable
6 system that we can rely on. But if it's a concern,
7 it's a concern that you take precautions against.
8 INVESTIGATOR BELL: So you would put that in
9 a Voyage Plan and --
10 CAPT. HEARN: My personal Voyage Plan, what
11 I was thinking and doing with that ship, yes.
12 INVESTIGATOR BELL: Would that go to the
13 company?
14 CAPT. HEARN: The company would be aware of
15 it, of course, because I wouldn't have managed anything
16 on the ship that was -- that I didn't tell them about.
17 INVESTIGATOR BELL: All right. Thank you.
18 CAPT. HEARN: Yes, ma'am.
19 INVESTIGATOR FURUKAWA: Mike? Jon Furukawa,
20 NTSB. Jack?
21 CAPT. HEARN: Yes, sir.
22 INVESTIGATOR FURUKAWA: As the -- in command
23 of the ship and concerns about seaworthiness, the
24 safety of the crew, did you ever have -- did you ever
25 for the El Faro or the El Morro refuse to sail them

1 because you didn't think it was seaworthy?

2 CAPT. HEARN: No.

3 INVESTIGATOR FURUKAWA: No. Okay. That's

4 all I had.

5 INVESTIGATOR ROTH-ROFFY: Tom Roth-Roffy.

6 The problems you were having with the El Morro and the

7 relationship with the Shoreside management, was that a

8 new development or could you just tell me how that came

9 to be? Was it a change in management? Was it some

10 issue with you? Was it a personality conflict? Just

11 to get a better understanding how you came to be in the

12 situation you were in.

13 CAPT. HEARN: It was no, but I knew

14 everybody involved because it was some -- at the west

15 coast, there was a transition of management where more

16 managers from the west coast were becoming involved

17 with the ship. And the east coast local management had

18 been let go. So some of those guys like Jim Coleman,

19 Skip McCray that were port engineers that we would talk

20 to at the port, they were gone and it was the west

21 coast managers that I was dealing with directly and Lee

22 Peterson.

23 Lee Peterson was also taking on more

24 operations and some of that was being deferred west.

25 And sometimes Lee wasn't available, because I think he

1 was involved in other things at the time. And I don't
2 know what that was. I won't speak for Lee.
3 But so I would -- I was dealing with them.
4 And some of the -- there was some difficulty with the
5 discovery of problems and how -- you know, whether it
6 was reportable, what should be done. And that was an
7 uncomfortable feeling, you know, because normally --
8 and TSI got involved, so we had to go to the designated
9 person level of discussion. And it got resolved, but
10 it was -- that was the difficulty and some of the
11 changes as we were working out that relationship.
12 INVESTIGATOR ROTH-ROFFY: Okay. Thank you.
13 MR. [redacted] Captain, this is Mike [redacted] on the
14 phone with the Coast Guard. Just with regards to the
15 deferring repairs, can you give us some insight into
16 how that process took place? Who made the decision to
17 make the deferment? Was it a Shoreside decision or was
18 it --
19 CAPT. HEARN: It would be a Shoreside.
20 MR. [redacted] Did it happen on the vessel or
21 was it collaborative decision? How did that go down?
22 CAPT. HEARN: Depending on the item and how
23 big it was and regulatory, if it was -- if regulatory
24 was involved, it would be certainly off the ship very -
25 - pretty quickly and handled ashore, because it's a

1 budget item and they have to schedule time, people,
2 parts, whatever, so it's -- not to make it more
3 complicated, but it would typically be taken off the
4 ship. We would -- if we were adamant or it was a
5 problem, we would -- all we could do is report it to as
6 many managers as possible to make it -- you know, make
7 -- put pressure on someone to get something done.
8 But that's, you know, how it works, at least
9 with this company in my experience that -- and some of
10 the change was it was towards the end of the life.
11 There was a little bit more reluctance to put money
12 into the ship, especially the El Morro.
13 MR. [redacted] But do you know how common --
14 CAPT. HEARN: And then the El Faro, of
15 course --
16 MR. [redacted] -- it was to involve the Coast
17 Guard or ABS in those decisions when it involved
18 critical equipment?
19 CAPT. HEARN: Well, they -- if it was
20 reportable, that's when it would be discussed and we
21 would go to the Coast Guard with it. And that's where
22 Harry Rogers was -- would, you know, get involved
23 because I was kind of working for three different
24 companies. You know, I was working for TOTE on the
25 west coast, SeaStar in Jacksonville and back then it

1 was Interocean American, now they are TSI. They were
2 in New Jersey.
3 So it -- I was talking to people all over
4 the place to try to get them together on some of those
5 issues. And sometimes it took a little bit of
6 coordination.
7 MR. [redacted] Thank you.
8 CAPT. HEARN: Yes, sir.
9 CAPT. NEUBAUER: Jason Neubauer, Coast
10 Guard. Sir, I'm wondering if there was a specific
11 individual or management level that you can name that
12 was an issue during the El Morro time?
13 CAPT. HEARN: There was an issue and a
14 couple of people were involved with it, but I don't
15 know.
16 MR. CRONIN: Can we have a minute?
17 CAPT. HEARN: Yes.
18 INVESTIGATOR KUCHARSKI: Okay. Let's go
19 ahead and pause the recording.
20 PARTICIPANT: Hum?
21 INVESTIGATOR KUCHARSKI: Let's pause the
22 recording.
23 PARTICIPANT: Pause the recording.
24 INVESTIGATOR KUCHARSKI: We are going to
25 pause for a second.

1 CAPT. HEARN: Okay.

2 (Whereupon, the above-entitled interview

3 went off the record at 3:38 p.m. and resumed at 3:55

4 p.m.)

5 MR. KUCHARSKI: Recording started. Okay,

6 everyone on the phone, sorry for the slight delay.

7 Captain Hearn had a discussion with his personal

8 representative and they came back in. They had a brief

9 discussion here, and he's ready to continue.

10 Around the table, any --

11 CAPT NEUBAUER: Well I believe I'd -- this

12 is Jason Neubauer with the Coast Guard. I was just

13 following up on the support issue from the shore side.

14 You'd mentioned that there was a conflict that had

15 developed kind of later on in your time on the El

16 Morro.

17 I was looking to see if there was a specific

18 officer or individual that you had some issues with

19 during that, for support and other issues?

20 CAPT HEARN: Well there was -- when I first

21 joined the El Morro in 2011, within hours actually we

22 found some structural damage that was pretty serious.

23 At least to me.

24 And it was reportable to the Coast Guard.

25 And we had a Coast Guard inspection scheduled in San

1 Juan a few days later.

2 So, I made a phone call. Actually Lee

3 Peterson received the phone call. So, he should

4 remember this. And we talked about it. And he kicked

5 it up to another level of management.

6 Cliff Hill in Tacoma was the manager that

7 received it. And it was a difficult conversation

8 because it was -- actually there was structural damage,

9 holes in the deck, on the second deck. The steel had

10 worn so thin that it was -- you could see into the

11 hold.

12 And we had it in a number of places. And I

13 was sure how -- what the extent was. But, I had to

14 tell the Coast Guard when we got to San Juan.

15 And it was going to be a -- you know, it's a

16 serious repair. It was plating. It's going to slow

17 down the operations here with the ship.

18 And this is -- this gets complicated because

19 you're asking a lot of the company. This is a cargo

20 area. It's going to slow down revenue. And I just got

21 on this ship.

22 So, I'm reporting things like I was looking

23 for trouble. But, I wasn't. It was reported to me and

24 I went down and took care of it and brought it to the

25 company's attention immediately.

1 Well, Cliff didn't want to report it to the
2 Coast Guard. So, he sent another port engineer named
3 Daryl Swiggs, who flew from Tacoma/Seattle to met me in
4 San Juan.
5 And the company representative, when the
6 Coast Guard officer came onboard, and asked me if there
7 was anything to report, I told him I had just joined
8 the ship. And the company had a separate
9 representative to discuss deficiencies.
10 And we went through a lot of the inspection
11 with the Coast Guard officer. We didn't complete it
12 that day that I recall.
13 But, the port engineer was shown the damage
14 by the chief engineer, they had discussed it. And some
15 other -- there was another fracture in the ship near
16 the mid body section. Those ramp openings were known
17 to have fractures in the plating, the shell plating.
18 And anyway, that port engineer did not
19 discuss it or tell the Coast Guard about the damage,
20 the structural damage. I was disappointed because it
21 was reportable and it was my responsibility.
22 So, I called Harry Rogers to discuss it and
23 -- by phone, because he's the designated person under
24 that type of system. And he kicked it to that level it
25 should go to, to discuss among the company to report

1 it.

2 And when we got to Jacksonville, it was

3 reported to -- the Coast Guard came onboard and the ABS

4 came onboard and it was reported. But it was

5 contentious because it was, you know, it went to that

6 level of a designated person of a Captain and a

7 conflict with a manager.

8 And it was very serious damage to me.

9 Because it was structural and we didn't know the

10 extent. So it took a while to get that fixed.

11 But the ABS came on. And I talked -- when

12 the Coast Guard came onboard in Jacksonville, Harry

13 Rogers was also there. By then there was other

14 deficiencies that were -- you know, we were bringing to

15 their attention and other issues to resolved.

16 And this took a few weeks of meetings with

17 the company and some conflict. Because I was reporting

18 it, there was resentment from some of the other ship's

19 officers towards me because they felt responsible. Or

20 that I was bringing up things that didn't need to be

21 reported.

22 But, to me it was. And of course this had

23 to be budgeted and repaired. And the issue about

24 reporting it with the Coast Guard was also an issue

25 separate for me. That I was separated from -- with the

company. How they resolved that, I don't know.

But, we did report it. I talked to the Coast Guard officer that came onboard. Harry Rogers and I both walked out to him and discussed my reporting responsibilities to the Coast Guard about these deficiencies.

And with the American Bureau of Shipping. And he felt satisfied verbally that day in that conversation that we were stepping forward in the right direction.

So, that's the difficulty. But it does create, you know, it's always a concern in your relationship as you move forward. You know, that you've got to bring problems to an aging ship and how you want to fix it.

That's my truthful answer.

CAPT NEUBAUER: Thank you.

CAPT HEARN: Yes, sir.

MR. KUCHARSKI: Any follow ups?

CAPT NEUBAUER: No, that's it.

MR. ROTH-ROFFY: So, --

CAPT HEARN: Yes, sir.

MR. ROTH-ROFFY: That's a specific issue. It seems like there were additional problems that came about. Was it kind of related back to this one? Or

1 were they just kind of separate new issues that --
2 about the maintenance?
3 CAPT HEARN: Well, there were more issues.
4 And I wasn't looking, but I had a responsibility. And
5 one way to learn a ship is to get out there and learn
6 the ship and look for things.
7 So, I surveyed areas of the ship that were
8 critical areas first. And then when I talked about
9 priorities, those are the things you look for, safety,
10 fire fighting, life saving, structural, and water tight
11 integrity.
12 And then the mooring system, voids
13 reliability, stuff like that. Personnel training, if
14 there's any -- not deficiencies, but limitations so you
15 know what you're dealing with.
16 And so that turned into a lot more work
17 because I found things that should be repaired. And
18 the company was responding and repairing them. It took
19 time.
20 But, there was just a -- not a difficult
21 time, but I was continually putting pressure on them.
22 And some people were very good about it. Some people
23 just a little bit more distant with me.
24 But, I didn't feel any -- I felt that I was
25 doing the right thing. And I was supported by some

1 people. So, that was enough for me.
2 MR. ROTH-ROFFY: Thank you.
3 CAPT HEARN: Yes, sir.
4 MR. FURUKAWA: John Furukawa, NTSB. So, I
5 heard you say that there were holes in the second deck.
6 That was a -- what I'd call the main deck. That was
7 the --
8 CAPT HEARN: Yes, sir.
9 MR. FURUKAWA: Top most, water tight deck?
10 CAPT HEARN: Yes, sir.
11 MR. FURUKAWA: And you got some push back
12 from some of the other ship's officers about reporting
13 that? That they didn't feel that it should have been
14 reported?
15 CAPT HEARN: Yes.
16 MR. FURUKAWA: So, they had been sailing
17 with it for some time?
18 CAPT HEARN: Yes.
19 MR. FURUKAWA: And so after ABS and the
20 Coast Guard came onboard and they saw it, did that
21 delay shipping and sailing until it was fixed?
22 CAPT HEARN: No. The ship continued
23 working. And with ABS surveyors in attendance, we made
24 repairs underway or in port. But we continued working.
25 The ship didn't go out of service.

1 MR. FURUKAWA: Did you need a waiver for
2 sailing?
3 CAPT HEARN: No. We -- not that I recall.
4 I mean, I think there was -- when the ABS surveyed the
5 areas, they would typically issue a work item. I
6 forget what they were called offhand.
7 But, there would be a limitation on when the
8 repair should be completed. And you know, they would
9 keep up with that.
10 So, there was a work order. Or a -- a
11 corrective action report.
12 MR. FURUKAWA: Okay. So, what I'm hearing
13 is that the ship's officers knew that there were holes.
14 Did management know before you reported it to
15 management?
16 CAPT HEARN: There was a meeting on the ship
17 to discuss this. And some of the ship's officers said
18 that management did know.
19 But, from my understanding, management did
20 not know.
21 MR. FURUKAWA: Thank you very much.
22 CAPT HEARN: Yes, sir.
23 CDR [redacted] Captain, this is Mike [redacted] on the
24 phone. Just a quick question with regards to that
25 situation.

1 So, the DPA was notified. Was there any
2 like follow up investigation as to the cause? Or any
3 notice that went out fleet wide to make other vessels
4 aware of the problems that you were having?
5 CAPT HEARN: Well, the port engineers would
6 certainly talk to the officers on the other ships. The
7 El Faro was laid up at the time. And she was unmanned.
8 The El Yunque was in port opposite us ever
9 few days. So, I'm sure it was probably discussed.
10 They sent a surveyor onboard the ship that gauged the
11 steel in the areas. And with ABS in attendance to make
12 those repairs.
13 And if there was any other repairs or
14 reportable issues, it was brought to the attention of
15 the port engineer. So, we started working on those
16 things and repairing them.
17 Some of them were outstanding immediate
18 responses. Some things took a little bit longer. But,
19 that was the company's management. And I don't really
20 have any difficulty with that. They were doing the
21 best they could, I guess.
22 MS. BELL: Um --
23 MR. KUCHARSKI: Carrie?
24 MS. BELL: Carrie Bell, NTSB. A question
25 about -- you said it was 2011 when this happened. So,

1 was that when you came to the Puerto Rico run?
2 CAPT HEARN: No. I came here in 2007.
3 MS. BELL: 2007, okay.
4 CAPT HEARN: And I worked there and
5 sometimes in the Mid East, if they chartered the El
6 Faro.
7 MS. BELL: Okay.
8 CAPT HEARN: For 2007, '08, and '09. And
9 then on '09, they laid up the El Faro and I was laid up
10 with -- part of the lay up crew, the maintenance crew.
11 MS. BELL: So when El Faro came back into
12 service, did you do the same kind of survey to look at
13 the critical areas?
14 CAPT HEARN: Yes. Absolutely.
15 MS. BELL: And how did that differ from your
16 experience with El Morro?
17 CAPT HEARN: Well, the El Faro, I knew the
18 ship better. Of course I worked on it regularly. It
19 didn't have those deficiencies.
20 Some -- breaking out a ship like the El Faro
21 broke it out of unmanned lay up. And there's -- if
22 it's been unmanned, it hasn't really been managed and
23 exercised. So, there's other issues, valves freeze and
24 they have to be exercised, machinery.
25 So, you -- there's a different set of

1 priorities on an operational ship that you're stepping
2 onboard and what you're looking for. Because you also
3 have to do some of it to satisfy the Coast Guard.
4 You're going to have to go through a full
5 inspection for lifesaving safety, fire fighting,
6 immediately before you can activate the ship. So, some
7 of it you work on right away and you know those
8 critical areas. And you test them.
9 With that ship it was operational. So --
10 and operational also is you have other duties, other
11 work to do. You have a full crew, a full cargo and a
12 voyage to manage. So, you fit it in whenever you can.
13 So, it's a little more difficult. When
14 you're running the ship and operating all the work that
15 gets done on the ship compared to breaking the ship out
16 and getting ready to -- all you do is focus on getting
17 that ship ready.
18 So, you can do some of that in an hour.
19 Where on an operational ship will take you half a day.
20 Or two or three days because you can only look at one
21 deck at a time.
22 MS. BELL: Um-hum.
23 CAPT HEARN: And then you look at another
24 deck when, like when the cargo's added, you can get in
25 there when it's open. So, that's how you have to work.

1 And so there's a limitation to it. But,
2 that's what you got.
3 CAPT NEUBAUER: One follow up question,
4 Captain.
5 CAPT HEARN: Yes.
6 CAPT NEUBAUER: Jason Neubauer, Coast Guard.
7 Jack, did you ever receive specific direction from a
8 company manager, verbal or written, to reduce your
9 shipboard inspections and reporting?
10 CAPT HEARN: No.
11 CAT NEUBAUER: Okay.
12 MR. KUCHARSKI: On the telephone?
13 CDR [redacted] Captain, this is Mike [redacted] again.
14 Just specific to your issue to when to report it to the
15 Coast Guard and when not to report things to the Coast
16 Guard.
17 Did the DPA or anybody ever make any type of
18 procedural change or do any follow up on your issue
19 with whether or not to tell the Coast Guard about the
20 damage discovered?
21 CAPT HEARN: Well, he was -- that was
22 Captain Rogers. When I worked at the company, he was a
23 little militant, like I said.
24 So, he was always looking for the
25 opportunity -- I shouldn't say looking for the

1 opportunity, but he was ready to go to the Coast Guard
2 first and then back off.
3 So, I can't say there was a real change.
4 The correspondence may have increased. And safety
5 meetings, or corporate meetings where they were trying
6 to get the word out to follow this up.
7 And there may have been internal
8 correspondence, you know, between an office or
9 something like that, to follow up. I know with one
10 incident, like the one with the ship that Captain
11 Neubauer mentioned the report with the exciter.
12 Things like that I remember Harry Roger
13 saying get that report in tonight and stuff like that.
14 So, he was adamant about getting it done.
15 CDR [redacted] Thank you. And another question,
16 just might be a little change in direction, but when
17 you had regulatory marine inspectors onboard, can you
18 just over time discuss your relationship with the Coast
19 Guard. And he quality and competency of marine
20 inspectors that you dealt with over your time?
21 CAPT HEARN: How far back are we going?
22 CDR [redacted] Well, just --
23 CAPT HEARN: '70s? '80s?
24 CDR [redacted] I would go all the way back. And
25 you know, we're asking a lot of questions about the

1 alternate compliance program. And if it's had an
2 effect on the quality of inspections of the commercial
3 fleet.
4 So, I mean it was -- is there a difference
5 from when you started to, you know, when you retired
6 and the competency and the level of oversight? And any
7 affect that might have had on the vessels and the
8 material condition of the vessels?
9 CAPT HEARN: Well, most of the Coast Guard
10 inspectors I worked with are very knowledgeable. But,
11 they're all about my age. There's a few younger that
12 were Warrants that had spent a long time in marine
13 inspection that knew ships and knew what they were
14 looking at.
15 The difficulty for them is that they also
16 have a lot of work to do. And they get there to look
17 for a period of time. And then they're onto the next
18 job. So, the volume of work, you could tell that they
19 were spread thin.
20 There was a time when I first started in the
21 industry, I remember Coast Guard inspectors coming on
22 and then going to lunch, and coming back to the ship
23 and spending two days. But -- or three days.
24 And they didn't have that time anymore. You
25 just saw them specifically for the task. And then they

1 went to the next job.

2 So, it was -- that's you know, how things

3 have changed. The world's moved on. And everybody

4 works harder, faster.

5 Does that answer your question, sir?

6 CDR [redacted] It does. And can you answer the

7 same question with ABS in mind and surveyors. Has

8 there been any change from when you started to when you

9 retired with the level of competency? Or the focus of

10 ABS?

11 CAPT HEARN: ABS is still one of the best

12 I've ever worked with, all their guys. Even if they

13 don't know the ship, they're very knowledgeable. They

14 rely back on their network of experienced people.

15 They -- like I said about mentoring with the

16 ships' officers and captains, I know the ABS guys will

17 do the same thing. They contact other principal

18 surveyors that they know that can give them advise of

19 how to step forward.

20 But, the same thing, they are working on a

21 lot of different projects. So, they don't get onboard

22 the ship and get a good feel for everything that's

23 going on. Because that's not what the -- how it's done

24 anymore.

25 The ships are a lot of bigger. The systems

are a lot more complicated. So, they can't get a good feel for the entire ship. And they may not get to know the ship if they transfer positions and they go to other ports. Which I know they do.

So, they don't -- they're not in the same place where like those ships are on the same run for ten years, but surveyors come and go. And don't get to know the ships.

Hopefully that answers your question. Or my perspective with it.

CDR [redacted] Thank you. It does.

CAPT HEARN: Yes, sir.

MR. KUCHARSKI: Mike [redacted] done?

CDR [redacted] Yes.

MR. KUCHARSKI: Okay. Thank you. Anybody else on the phone?

(No response)

MR. KUCHARSKI: Jack, I do have one last question on engineering. Is there anyone you would recommend us talking to regarding engineering concerns on the Ponte vessels in heavy seas?

CAPT HEARN: There's several guys that would come to mind. The engineer that knew the El Faro best at the end was Mark Gay. Other then Jim Robinson.

He was there for the lay up and maintained

it then. And then he was also there to break it out. So, he knew the reactivation of the ship and those systems fairly well. Just like Jim does.

The other engineer that knew those ships extremely well, Bruce Keller, just left the company. And then as far as rough weather conditions, I would talk to Harry Poole is chief engineer on the North Star that works for TOTE now. He had plenty of experience in rough weather.

And the retired engineer is John Turlow. He was the chief engineer on the Great Land for many years. Those are, you know, some offhand names of guys that I worked with that -- good people.

They -- all of them are good.

MR. KUCHARSKI: Okay. If there are no objections, I'd like to move into just -- I know we've covered them, but maintenance type items. Just --

CAPT HEARN: Okay.

MR. KUCHARSKI: There were a couple of follow on questions I had specifically for maintenance. Going back to the cargo securing devices, both portable and fixed, you mentioned there were visual inspections made.

Is that correct? On the El Faro?

CAPT HEARN: Oh, the cargo securing devices?

1 MR. KUCHARSKI: Yes.
2 CAPT HEARN: Yes.
3 MR. KUCHARSKI: Okay. And I know you're
4 going to hate it, but was any record kept of these
5 inspections at all that you're aware of?
6 CAPT HEARN: The El Faro was laying up quite
7 a bit. And a lot of our cargo gear went off the ship
8 when she did. And then it was brought back to the
9 ship.
10 And that was a pretty regular occurrence for
11 that ship from 2009 until I left the company. She was
12 laid up then. So, the cargo gear would be brought on
13 fresh and relatively new.
14 The -- and before that, when I was on the El
15 Faro, it was on the run to the Mid East quite a bit.
16 And the same thing, cargo gear was brought on for use
17 and then taken off the ship if we didn't need it.
18 So, the cargo gear, it was hard to have
19 inspections on cargo gear's coming and going to the
20 ship on a necessary -- on an as needed basis. When she
21 was -- and she was never really that long on the run
22 except for about a year and a half, running to
23 Philadelphia.
24 But that cargo was only about a year and a
25 half old when they took it off again and laid up the

ship.

MR. KUCHARSKI: Okay. I'm going to jump back into the cargo securing manual, the approved one from ABS. And page 5-6 and 6-6 of the cargo securing devices, okay? And section 5.3.3 talks about fixed securing device shall be visibly inspected routinely at once -- at least once every voyage for damage such as cracking or deformation.

CAPT HEARN: Yes.

MR. KUCHARSKI: And then the next sentence is in way of fixed cargo securing devices, ship structure that is visible, shall be inspected at least once every six months for damage such as cracking or deformation.

CAPT HEARN: Yes.

MR. KUCHARSKI: Okay. And then on the following page is a form that on 6-6, which says log for maintenance of cargo securing equipment.

CAPT HEARN: Um-hum.

MR. KUCHARSKI: Have you ever seen this form before?

CAPT HEARN: I may have. That's something that the chief mate would maintain. And it wasn't something I really -- that I checked on that much. Because it was more of a -- it was such a routine

1 inspection they probably kept a record in their -- and
2 they kept this book by the way, the cargo manual.
3 So, they would have kept those records right
4 there in their office. And if they had any issues,
5 they would discuss it with me and when I look at their
6 book.
7 It's just like the security manual. I
8 wasn't required to sign this one. But the security
9 manual, I would sign it at the bottom. So, they would
10 bring it to me and I would sign it.
11 And it was usually just a signature because
12 everything was obvious that they were doing their job.
13 But this one here, it was something that was just
14 managed by the chief mate.
15 MR. KUCHARSKI: So, did you ever see a --
16 this form completed?
17 CAPT HEARN: No. Not that I recall. It
18 could have been, but I don't recall seeing it. Knowing
19 the chief mates that I worked with, I think they did.
20 MR. KUCHARSKI: The overall maintenance on
21 the vessel besides the issues you talked about on the
22 El Morro, --
23 CAPT HEARN: Um-hum.
24 MR. KUCHARSKI: On the El Faro, were you
25 happy with the overall maintenance on the vessel?

1 CAPT HEARN: Yes.

2 MR. KUCHARSKI: And that includes both deck

3 and engine items?

4 CAPT HEARN: Yes.

5 MR. KUCHARSKI: Did Sea Star have a

6 different plan maintenance system from the TOTE

7 Services in the TSI planned maintenance system?

8 CAPT HEARN: Not that I recall. It was

9 something that we worked on together. Whether it was a

10 paint schedule and maintenance or greasing,

11 lubricating. Cargo gear like this.

12 The engineering was the same thing. The

13 engineering side was managed by a computer system. So

14 that -- and the engineer spent a lot of time on that.

15 And the port engineers were with him on there.

16 So, it was updating daily for orders, for

17 maintenance, for record keeping with that. So, it was

18 -- and spare parts left on the ship.

19 MR. KUCHARSKI: So, was this -- was the same

20 plan maintenance system?

21 CAPT HEARN: Yes.

22 MR. KUCHARSKI: I think we've covered most

23 of the other questions about cargo securing gear. Are

24 there any questions, specific questions on maintenance?

25 Future -- any other maintenance item questions?

1 (No response)
2 MR. KUCHARSKI: On the telephone?
3 MR. MILLAR: Yes. This is Mike Millar with
4 ABS.
5 MR. KUCHARSKI: Hi Mike.
6 MR. MILLAR: Captain Hearn -- yes, sir.
7 CAPT HEARN: Yes sir.
8 MR. MILLAR: Captain Hearn, with regards to
9 maintenance, was there maintenance or vent closures on
10 a regular basis? Was there inspection and testing of
11 fire dampers? Especially those on the -- above the
12 free board deck or second deck?
13 CAPT HEARN: Yes. There was regular testing
14 and logging of that inspection. At least, I think it
15 was if I remember correctly, it was monthly. But I
16 could be wrong.
17 MR. MILLAR: I know we've covered a variety
18 of topics. But, would any actions be taken in the --
19 for heavy weather? Voyage planning prior to departure
20 in an expectation of heavy weather to take action with
21 vent closures or heavy weather planning check list for
22 -- prior to going on a voyage?
23 CAPT HEARN: There was a heavy weather check
24 list that I recall. I don't remember seeing it. I
25 didn't need to pull it out too many times towards the

1 end of my career.
2 But, I spent a lot of time in heavy weather
3 and getting ready for heavy weather, so I would have
4 been comfortable with it if I was. And would have
5 taken, you know, action.
6 Probably would have pulled it out to double
7 check myself.
8 MR. MILLAR: Do you recall whether there
9 were any specific actions to be taken with regards to
10 vent closures or the fire dampers on the -- above the
11 free deck?
12 MR. KUCHARSKI: Mike, is it maintenance?
13 Mike Millar, maintenance? Any questions? Sorry, this
14 is Mike Kucharski. On maintenance items for these that
15 you want to cover?
16 MR. MILLAR: I'd say I probably -- I went
17 back to a little bit of the heavy weather stuff. And
18 it was something that popped into my head.
19 MR. KUCHARSKI: Okay. We're going to run
20 into stability next and fire dampers and all those
21 items.
22 MR. MILLAR: Okay.
23 MR. KUCHARSKI: Is there anything
24 maintenance you want to cover before we move onto the
25 next topic?

1 MR. MILLAR: Yes. With regards to the
2 engineering and the propulsion systems, had there ever
3 been any instances where you would have had to have
4 gone, or felt the need to go to the DPA with respect to
5 the propulsion plant?
6 CAPT HEARN: No. We were working with
7 engineering on that. And I don't remember anything
8 that had to go above that level or you know, outside of
9 that level.
10 MR. MILLAR: Okay. Thanks.
11 CAPT HEARN: I would of course keep
12 everybody informed. It was, you know, that kind of a
13 company that you could talk about things.
14 MR. MILLAR: Okay. Thanks Captain.
15 CAPT HEARN: Yes, sir.
16 MR. KUCHARSKI: On the phone, any
17 maintenance item? Or in the room? Captain?
18 CAPT NEUBAUER: Yes, Jason Neubauer, Coast
19 Guard. Sir, did you experience any maintenance issues
20 with the primary davits or the davits on either -- any
21 of the vessels you served on? And the consequences?
22 CAPT HEARN: ON the lake boat davits, not
23 the davits. No, they seemed to be running fine.
24 There's always maintenance, routine maintenance,
25 lubricating and things like that.

1 But, I don't remember anything negative with
2 them.
3 CAPT NEUBAUER: Thank you.
4 MR. KUCHARSKI: Any other maintenance items
5 before we move on?
6 MR. STITH: Yes, this is Kevin with TOTE
7 Services.
8 MR. KUCHARSKI: Hi, Kevin.
9 MR. STITH: Hi. Captain Hearn, hi. In your
10 time on the El Faro and the Northern Lights, did you
11 ever recall having any maintenance issues with any of
12 the scuttles on the second deck?
13 CAPT HEARN: Yes. There -- the scuttles
14 need regular maintenance.
15 MR. STITH: Okay. So, that was basically
16 just exercising and lubrication?
17 CAPT HEARN: Basically. But also that they
18 were sealing tight. Because sometimes it would -- the
19 gasket if it was getting old or something like that, it
20 wouldn't be a tight seal.
21 So, you'd have to put, you know, take the
22 gasket out, beef it up a little bit. Or put a new
23 gasket in there to seal it correctly.
24 And the dogs might need a mechanical repair
25 so that they fit properly and pull tight.

1 MR. STITH: Okay. So, on the El Faro, that
2 type of scuttle had a -- like a hand wheel and dogging
3 arrangement?
4 CAPT HEARN: That's correct. Yes.
5 MR. STITH: Okay. And when you were last on
6 there, do you remember if all those were in good order?
7 Or any were damaged in any way?
8 CAPT HEARN: When I was last on the El Faro,
9 I think that they were in good order. But, the ship
10 had been in and out of lay up.
11 And because there was so much to do, some of
12 these things, you know, fall off your radar. I know
13 that that's an important one.
14 So I believe that we would -- if it wasn't
15 repaired, it was in the process. But, we were -- my
16 last time on the El Faro was only for three months. We
17 went from lay up back into lay up.
18 So, some things just, you know, didn't get
19 done. I hope that answers your question. But that's
20 my best of recollection.
21 MR. STITH: Yes. That sure does.
22 CAPT HEARN: Okay. Thank you.
23 MR. KUCHARSKI: Anyone else on the phone on
24 maintenance items?
25 (No response)

1 MR. KUCHARSKI: Okay. I'd like to move into
2 stability now. Jack, talk to us about the fire
3 dampers. And I know you talked about the maintenance
4 on them.
5 But, tell us how those were treated,
6 especially to heavy weather, if expected heavy weather.
7 CAPT HEARN: Well, we didn't -- the fire
8 dampers and the ventilation system for the cargo holds,
9 normally they were secured at sea. But there maybe
10 times when we had the ventilation system on because men
11 were working down below. And they would be open for
12 that.
13 In heavy weather they weren't as much of a
14 concern for me. Because we didn't really take seas
15 spray through those dampers and into the hold. If we
16 did, the volume wasn't great.
17 And we did and the volume wouldn't be great.
18 And I've seen the wind so hard on the hull that it
19 drove water up the hull. So that we were getting water
20 where it was going actually up because the force was so
21 great.
22 And then we're talking hurricane force or
23 higher. But -- and the spray might be out there. You
24 know, it was coming alongside the ship in the
25 atmosphere.

1 But, there's baffles outside the hull that
2 would prevent heavy water from getting into that --
3 into the system. So, we didn't -- it wasn't as bit a
4 concern.
5 MR. KUCHARSKI: Was that -- this wall of
6 water, or this water running up the hull from strong
7 winds, was that on the Ponce class vessels on the
8 Puerto Rican run?
9 CAPT HEARN: If the winds were high enough
10 it would be. But, I've seen it. But, I don't remember
11 seeing it on that run. We never really got into that
12 strong of winds, you know, when I was there.
13 But, it's my experience with the ship. And
14 you're talking droplets. So, over a day, you might get
15 a measurable amount of water in the bilges in those
16 cargo holds.
17 But it wouldn't be a -- I wouldn't call it a
18 floodable amount or even where you would need boots
19 walking down there.
20 MR. KUCHARSKI: You brought in another area,
21 the ventilation trunks. Are those different from the
22 fire dampers?
23 CAPT HEARN: Well, those fire dampers are in
24 the ventilation trunks. And they, you know, they
25 secure ventilation to the hold when you're -- if you

1 had to use the CO2 system.
2 MR. KUCHARSKI: So, the fire dampers are
3 incorporated inside the ventilation trunks in the
4 holds?
5 CAPT HEARN: Yes.
6 MR. KUCHARSKI: And you said those were
7 secured when you went to sea?
8 CAPT HEARN: They would normally be
9 secured. But, if we had people in the holds, which was
10 not uncommon, then we'd have ventilation on, they would
11 be opened.
12 MR. KUCHARSKI: Did you ever on the Ponce
13 class vessels, open up these ventilation trunks to look
14 inside?
15 CAPT HEARN: Yes.
16 MR. KUCHARSKI: And could you tell us what
17 you found?
18 CAPT HEARN: Sometimes the corrosion was
19 heavier inside there. Because it was an out of sight
20 location. So, you might have more corrosion in there
21 then other locations. And they were hard to get to.
22 So, it was something that we tried to keep
23 on the list for those off periods when we had the
24 opportunity to get in there and maintain it.
25 MR. KUCHARSKI: Specifically the El Faro,

1 were those trunk -- did you ever see those trunks open
2 up where you could look --
3 CAPT HEARN: Yes.
4 MR. KUCHARSKI: Could you des -- when you
5 talk about corrosion, could you describe what you saw
6 inside there?
7 CAPT HEARN: A big fan casing and steel.
8 And rusty -- you know, rusty or dirty areas. But, --
9 and the damper would -- it's thin steel, the damper.
10 It's not a heavy piece of steel.
11 It's on an arm. It's a mechanical arm that
12 goes up with the damper and it moves the damper, you
13 know, identically with the arm so you could see it.
14 The -- it's one of the more simplier systems on the
15 ship.
16 MR. KUCHARSKI: Was there any combing around
17 any of the --
18 CAPT HEARN: The dampers, the enclosure was
19 bolted from the inside. So, you had to take quite a
20 bit of it off. And the engineers would go in there if
21 there's a fan problem or something, they were in there
22 quite a bit.
23 And so, it wasn't uncommon to get in there
24 and fix a fan or a damper if it was frozen. Or
25 sometimes the arm broke off and they had to -- because

1 they got exercised quite a bit and they would be
2 slammed.
3 MR. KUCHARSKI: Okay. I have a picture
4 here. It's number eight that we will also incorporate
5 it as part of the transcript. And this was taken on
6 the El Yunque.
7 CAPT HEARN: Um-hum.
8 MR. KUCHARSKI: Maybe you could describe
9 what the picture is.
10 CAPT HEARN: From frame 79 to 82, it's a
11 ventilation trunk extending from the bulkhead about, I
12 guess it's about a two and a half to three foot, maybe
13 30 inch trunk. There's three dampers.
14 This is over a -- I would call it number one
15 hold because I went by the old system of discussion.
16 But, hold A. And there's that mechanical arm that I
17 talked about.
18 These are smaller dampers. There were
19 bigger dampers on the ship for other ventilation trunks
20 on the back. And that's the bulkhead entrance to get
21 in there that I was talking about.
22 MR. KUCHARSKI: Was that the only entrance
23 into the --
24 CAPT HEARN: Into that one that I would
25 think of, yes.

1 MR. KUCHARSKI: Were there lower entrances?
2 CAPT HEARN: Yes. Down below. But, that
3 was just a ventilation duct down below it in the cargo
4 hold itself. So, it wouldn't be any --
5 MR. KUCHARSKI: On this -- can you tell if
6 this is on the second deck? Or if it's on the --
7 CAPT HEARN: This is the second deck.
8 MR. KUCHARSKI: Oh, this is the second deck?
9 CAPT HEARN: All the dampers are on the
10 second deck. They were for the holds. So, you would
11 sweep the holds and that's where you would get to them
12 all.
13 MR. KUCHARSKI: Let me stop there for a
14 minute and see if there are any questions about dampers
15 or ventilation fans, that the ventilation systems, the
16 trunks? Tom?
17 MR. ROTH-ROFFY: Tom Roth-Roffy. I believe
18 that this --
19 MR. STOLZENBERG: Captain, this is Eric
20 Stolzenberg from the NTSB, Nav Op Group. When you
21 described the baffles, were those on the inlet trunk or
22 the exhaust trunk to the hold?
23 CAPT HEARN: I think they're on both sides.
24 MR. STOLZENBERG: Of both the inlet system
25 and the exhaust system?

1 CAPT HEARN: Yes. On each side.
2 MR. STOLZENBERG: About how high did those
3 baffles go up?
4 CAPT HEARN: Well, actually the fans were
5 force fans. They just blew in and ventilated out
6 naturally through the space.
7 So, if you wanted to go out the vent, the
8 damper, you would just turn on one side and it would go
9 through the fan.
10 MR. STOLZENBERG: Okay. So, when you say a
11 baffle, is that specific to either the inlet or the
12 exhaust system?
13 CAPT HEARN: Well, I didn't say baffle, it's
14 a damper.
15 MR. STOLZENBERG: Oh, I'm sorry.
16 CAPT HEARN: That's okay. So, that damper
17 would secure that trunk for fire primarily. To secure
18 air from getting into it. And of course, the idea is
19 to use a CO2 system to isolate the system from the
20 cargo hold from ventilation.
21 But, the other reason for ventilation, and
22 it's a high volume ventilation, it's a vehicle carrier.
23 So, you're carrying gasoline and diesel fuel down
24 there, and vehicles.
25 And when you're working cargo, you have CO2.

1 Or CO.

2 MR. STOLZENBERG: Okay. Understood. I've

3 only been out in the El Yunque. But, have you ever

4 been inside when you -- on the second deck, have you

5 ever entered the exhaust trunks from the second deck on

6 the El Faro?

7 CAPT HEARN: Well, like I said, they're all

8 force ventilation in. So, there's no real exhaust.

9 The exhaust goes through the hold in the space.

10 But there -- and you can -- you can exhaust

11 through the vent system on the other side if you put

12 pressure on the cargo hold and you don't open them or

13 anything. And if you keep the doors closed, all those

14 big water tight doors that we talked about.

15 MR. STOLZENBERG: Right.

16 CAPT HEARN: So, it would exhaust out the

17 other side. I've been in many of the trunks if they

18 were open and doing work, I would look in them. But it

19 wasn't my routine to be inside of the ventilation

20 trunks I have to say.

21 MR. STOLZENBERG: Okay. That's what I was

22 looking for. Is if you just had any idea of what the

23 inside of those trunks looked like on the second deck

24 and the extent of the baffling. Which I see in the

25 drawing.

1 CAPT HEARN: Okay.
2 MR. STOLZENBERG: That's all. Thank you.
3 CAPT HEARN: Yes, sir.
4 MR. ROTH-ROFFY: This is Tom Roth-Roffy,
5 NTSB. Mike had asked you a question about the open or
6 closed status of the dampers at sea.
7 CAPT HEARN: Um-hum.
8 MR. ROTH-ROFFY: And I believe you said
9 they're normally closed.
10 CAPT HEARN: Um-hum.
11 MR. ROTH-ROFFY: Would that involve going
12 through all the cargo holds and --
13 CAPT HEARN: Well, when I say they're
14 normally closed, that's not entirely accurate. Because
15 if you just came out of port, you shut off ventilation.
16 You're keeping them open to keep natural ventilation
17 moving through.
18 And because we carry vehicles down there, we
19 may put fans on to ventilate those systems before
20 personnel went down there. So, a lot of times they
21 were open.
22 If you were making a long voyage and you
23 didn't have vehicles down and you weren't worried about
24 it, you would secure them just to keep the damage and
25 the moisture out of the atmosphere. But, it depends.

1 And so, it went both ways with that system.
2 I'd say probably they were open more then they were
3 closed to be quite honest.
4 MR. ROTH-ROFFY: On the Puerto Rican run?
5 CAPT HEARN: Yes.
6 MR. ROTH-ROFFY: Were they open all the time
7 probably?
8 CAPT HEARN: Probably.
9 MR. ROTH-ROFFY: Okay. That's all I have.
10 Thanks.
11 CAPT HEARN: Yes.
12 MR. KUCHARSKI: On the telephone? More
13 questions on the ventilation trunks or the dampers?
14 (No response)
15 MR. KUCHARSKI: Okay. Down flooding, I
16 believe you said you never saw any down flooding into
17 the cargo hold via either the, you know, the
18 ventilation trunks?
19 CAPT HEARN: Not flooding. I've seen water
20 come in. But not flooding.
21 MR. KUCHARSKI: And the water was from?
22 CAPT HEARN: Forced from either spray
23 hitting those ventilation dampers. And it would get
24 into the space. And then, you know, work its way down
25 into the hold.

1 Or spray that actually worked up the wall.
2 But, it would be pretty rare for that. That would
3 usually be spray, heavy spray that was in the air that
4 came in.
5 And it wasn't a large volume. It would be
6 enough to pump bilges but not enough to maybe put boots
7 on.
8 MR. KUCHARSKI: Was there any specific
9 policy, something in writing, regarding opening and
10 closing of the ventilation trunks to the cargo holds?
11 CAPT HEARN: Well, it was vehicle carrier,
12 and part of the cargo process was to have them open for
13 that. And it's a fire fighting procedure, so it would
14 be in that -- the process there would be documented
15 also.
16 So, there's two locations where it would be
17 written about how to manage the ventilation trunks.
18 And then there was also records kept and there was a
19 maintenance issue. So that the officer that did that
20 would keep a record of their inspections.
21 MR. KUCHARSKI: And any last questions about
22 ventilation trunks or fire dampers before we move onto
23 other stability areas?
24 (No response)
25 MR. KUCHARSKI: Jack, was there a company

1 policy on minimum GM in excess of -- the minimum margin
2 to have in GM?
3 CAPT HEARN: Yes.
4 MR. KUCHARSKI: And what was that policy?
5 CAPT HEARN: Well, there was a -- I
6 shouldn't say it was a company policy, it was a
7 discussion and negotiated safety zone for most voyages
8 going to Puerto Rico, to have a point five foot margin
9 above the required GM.
10 And this was from voyage experience, to have
11 enough GM at the end of the voyage, to have a little
12 bit of margin left over. So we -- on a good voyage.
13 So, this was -- because we started carrying
14 heavier loads, and the company was able to, especially
15 on the ships that had fructose down below, get very
16 close to a full and down ship. Which is hard to do,
17 but it's the perfect thing to do.
18 And -- but because of that, we were also
19 very close to the margin with GM. And of course we
20 could -- you could see that. But, we were -- the ship
21 was tender. And we were also worried about falling
22 below GM.
23 Because you don't load to have GM at the
24 beginning of the voyage. You load to have GM at the
25 end of the voyage when you burn off fuel down below.

1 So, we learned that we could on a normal
2 voyage burn that fuel and still have reserve GM or a
3 margin of GM above the required when we made arrival in
4 port.
5 MR. KUCHARSKI: So, it was -- when you say
6 leaving to have enough GM, was it equal on both the
7 leaving San Juan and leaving Jacksonville or --
8 CAPT HEARN: You didn't have this problem
9 leaving San Juan. Only leaving Jacksonville with a
10 full load, heavy load. Because we carried our heaviest
11 cargo from Jacksonville south.
12 MR. KUCHARSKI: And you said under normal
13 circumstances to have proper GM on arrival in San Juan.
14 CAPT HEARN: Right.
15 MR. KUCHARSKI: But what would you consider
16 a normal circumstance?
17 CAPT HEARN: Good weather. Good weather and
18 -- yes, good weather really. You know, because there
19 may be some other circumstance that would -- like I
20 said, it's not complicated. But it can be complex.
21 And if there's some other condition of the
22 ship that you're going to deal with, fuel issues or
23 ballast issues that would change your GM, you have to
24 be thinking about that.
25 MR. KUCHARSKI: And could you explain what

1 you mean by full and down?

2 CAPT HEARN: A ship that's loaded down to

3 her marks. And all cargo capacity's used up.

4 MR. KUCHARSKI: So, if the vessel is leaving

5 full and down, at her marks.

6 CAPT HEARN: Um-hum.

7 MR. KUCHARSKI: At its marks, and you're

8 looking to have proper stability coming into San Juan,

9 is there anything you can do to enhance stability on a

10 voyage with a vessel that's full and down?

11 CAPT HEARN: Normally, no. You have --

12 that's what you've got. You don't have much ballast

13 room. It's very tender. You've got to be careful

14 about free surface because you're at your limits with

15 everything.

16 And as you burn fuel, you're losing

17 stability. And you're also maybe adding a little bit

18 of a margin of free surface. Which also brings GM up

19 and you'll -- your G up, so you'll lose stability.

20 So, you're getting tight on reserve -- on

21 required GM. You still have positive GM, but you're

22 tight on required GM for the voyage.

23 And you get anxious close to that because

24 you're on a ship that things can happen with. So, you

25 don't want to -- you always like to have as much safety

1 factor with everything.

2 Like I was saying about those precautions,

3 you're also looking for safety factors about extra GM.

4 But, with that one, it's about revenue and doing the

5 job. And getting as much, you know, cargo down there

6 as possible.

7 We had learned that on the good conditions,

8 normal voyages, we could take a half a foot margin and

9 still have required GM on the voyage. And deliver the

10 freight and go.

11 MR. KUCHARSKI: Were ballast exchanges made

12 during that time?

13 CAPT HEARN: Yes.

14 MR. KUCHARSKI: How would you keep -- was

15 there any concern?

16 CAPT HEARN: Well, we didn't have to do

17 ballast exchanges offshore, because that ship was in

18 the same environmental zone. So, you could do it in

19 either port and not worry about it.

20 So, we didn't have an issue there. And the

21 El Faro had, at least when I managed it, we rarely

22 exchanged ballast. I tired to keep it fixed up there

23 because it's better for the ship. Unless we had to

24 work on trim up forward.

25 So, a lot of times we didn't move ballast at

1 all. We kept it, you know, kind of permanent. A
2 permanent arrangement. It was the same fixed ballast.
3 And there wasn't a lot of flexibility in the
4 ballast the system only in those forward tanks. You
5 could -- the after peak tanks were capable of ballast,
6 but you really didn't use them for anything. They were
7 empty. Void spaces for the most part.
8 MR. KUCHARSKI: Was there permanent ballast
9 on the El Faro?
10 CAPT HEARN: Yes.
11 MR. KUCHARSKI: And what was this permanent
12 ballast like?
13 CAPT HEARN: The permanent ballast was a --
14 I've described as a drilling mud. It's a real heavy
15 material like mud. And it's dirty and messy like mud.
16 But, it's -- and it's pumpable, at least
17 when it's poured in. But to get it out, it's usually
18 not pumpable anymore. They have to shovel it out. It
19 settles.
20 It's very heavy. And it serves a better
21 purpose then actual ballast because it's heavier. It
22 can give you -- and that helps with that GM margin by
23 moving the center of gravity down. Because it's
24 heavier then water.
25 MR. KUCHARSKI: And were there tanks that

1 fresh water was kept in as far as ballast tanks?
2 CAPT HEARN: Well, we carry fresh water
3 forward for the boilers. And there was -- I tried to
4 carry fresh water ballast even in the salt water
5 ballast tanks when we had the opportunity.
6 Because it was better for the ship, rather
7 then introducing salt water in and out, because of the
8 corrosion that it could cause. And especially --
9 that's why we try to keep a fixed amount up forward
10 there.
11 But, we had a limited capacity or capability
12 to do that. And towards the end, because we had to
13 pump ballast so much for trim, especially heading north
14 bound again, to put extra ballast in, we would get rid
15 of it heading south for weight, that we would have to
16 use salt water.
17 MR. KUCHARSKI: Were there any tanks where
18 fresh water, they were filled up with fresh water for
19 ballast purposes and they weren't touched?
20 CAPT HEARN: Well, those tanks forward where
21 the engineers use, they were basically not touched.
22 But they were there. I think number two is -- two of
23 the inboards were fresh water.
24 Two or one, I can't remember now.
25 MR. KUCHARSKI: So, if the engineers used

1 them, they were touching them?

2 CAPT HEARN: Yes. They would be in use.

3 They would exchange it back to the fresh water system

4 further back. But for the most part it was relatively

5 fixed.

6 And they would put more water back up there

7 when they had a chance.

8 MR. KUCHARSKI: What would happen if -- you

9 talked about the half a foot GM margin --

10 CAPT HEARN: Um-hum.

11 MR. KUCHARSKI: Over the required GM. And

12 that was under normal circumstances run from

13 Jacksonville to San Juan.

14 CAPT HEARN: It was becoming normal.

15 MR. KUCHARSKI: What would happen if you had

16 to weather route?

17 CAPT HEARN: See that's -- when you start

18 getting into the situation where you have a tight GM

19 margin and a storm out there, then like I was talking

20 about other conditions or limitations of your voyage

21 and your voyage plan, you have to consider what you're

22 dealing with here.

23 And I would seriously consider going the

24 safer, fair weather route to avoid getting it close to

25 a storm. Because you're so close to your GM.

1 And that tender ship is difficult. And like
2 we talked about earlier with ship handling, it's
3 difficult in rough weather. More difficult because
4 it's a slow rolling a tender ship.
5 Anyway, but before you have -- or you have a
6 half a foot margin.
7 MR. KUCHARSKI: But, I guess my question
8 sort of centers on would you be able to keep GM margin
9 if you were full and down, you were at the marks.
10 CAPT HEARN: Um-hum.
11 MR. KUCHARSKI: You took your fuel, and as
12 you said, you were very tight in GM down in San Juan.
13 What would happen if you had to route, say use the
14 Yucatan Channel, could you do that?
15 CAPT HEARN: Yes.
16 MR. KUCHARSKI: How would you maintain GM?
17 CAPT HEARN: Well, you would probably -- I
18 mean, if you had to burn more fuel then you
19 anticipated?
20 MR. KUCHARSKI: Yes, the Yucatan, going down
21 between -- down the Strait of Florida, around Cuba and
22 then --
23 CAPT HEARN: That's another condition you
24 have to manage. If you're going to start burning fuel
25 that you don't have for the voyage or for stability,

1 you may have to go some place else and get fuel.
2 Or, you've got other issues -- other things
3 to deal with. And that's kind of -- if I had that
4 situation, I would let the company know that I'm
5 running into a limitation for, you know, what I -- the
6 other conditions of the voyage, whether it's weather or
7 fuel.
8 And we'd have to come up with a solution.
9 Whether to get -- something -- you have to protect the
10 stability of the ship.
11 MR. KUCHARSKI: How would you do that if
12 you'd already sailed?
13 CAPT HEARN: The same way I just said. I
14 would contact the company and let them know I have a
15 limitation developing. And that we have to change our
16 voyage plan or find another port and get fuel.
17 I mean, the options of flooding a fuel tank
18 to get GM would be an extreme option. But that's an
19 option that would exist that you would bring the
20 company in, because it's damaging to the fuel system.
21 You have to isolate it, clean it. It's
22 going to change the voyage reliability for the next
23 trip. So, you would try to avoid that.
24 But, you're not in that situation. What
25 you're asking me is just a routine voyage and then all

of a sudden you change route or direction.

You have to -- you just can't do that if you -- you can't continue until you run out of GM and burn your fuel off.

MR. KUCHARSKI: The El Faro leaves port on her last voyage. And -- but they have half a foot GM.

CAPT HEARN: Um-hum.

MR. KUCHARSKI: Okay? And then somewhere along the route they may have to weather route what option is open to the vessel to increase GM to account for excess fuel burn.

CAPT HEARN: There's not a lot of options. It's the kind of thing if I was -- I would have to get into the stability computer and look for them, you know, to see what tankages I've got.

You do have a little bit of tonnage down there with your ramp tanks that can be flooded. And if you're not carrying anything, or you're only carrying on one side.

And I've done that. Where we've filled up with salt water on both sides just to get a little better margin GM. It's about 300 tons, but it's something.

And you look for capacity. But, you have to calculate it. It's not a simple solution. And when

1 you're at capacity with everything, there's not a lot
2 of options. I mean, that's part of the deal.
3 MR. KUCHARSKI: Was there any rule that you
4 used for the amount of fuel to keep onboard?
5 CAPT HEARN: We fueled every other week to
6 full. And the second week was less. There was no --
7 that was the routine.
8 Sometimes we would carry -- there might be a
9 little bit of management of fuel, a little bit. A
10 margin, a small one on fuel capacity around tonnage or
11 something like that.
12 But, for the most part, it was, that I
13 recall anyway. And I know having discussions like
14 that. But, I can't recall them specifically that we
15 could carry fuel every week less and carry more
16 tonnage.
17 Or carry fuel more frequently, and carry a
18 lot more fuel and have the GM capacity. So, these are
19 considerations you would take to the company and decide
20 how they want to manage the cargo system and the ship's
21 limitations to get the most economic advantage of the
22 voyage.
23 MR. KUCHARSKI: I'm going to depart a little
24 bit from my own rule. Because you men -- we're talking
25 about fuel. But, was there unpumpable amount of fuel

1 which you just couldn't get out of those tanks?
2 CAPT HEARN: Oh, almost always. There's a
3 -- you know, remaining onboard, ROB, especially heavy
4 fuel like that would be down there.
5 MR. KUCHARSKI: Do you know what that number
6 was on this ship?
7 CAPT HEARN: I've -- three to five hundred
8 tons, you know. Or excuse me, barrels, would be in
9 those tanks that they couldn't get to.
10 MR. KUCHARSKI: Okay. And this is sort of,
11 we didn't discuss it in engineering. But you mentioned
12 about the -- as the ship has motion to it, the
13 strainers can sort of get clogged from the fuel.
14 Did any of the chief engineers express that
15 concern to you?
16 CAPT HEARN: Several. It was common. That
17 class of ship, the fuel and the quality of fuel, Alaska
18 it happened, and it even happened in Puerto Rico, where
19 they would have fuel and fuel strainer problems.
20 But that heavy fuel carries sediment with
21 it. Waxy materials that wasn't always pumpable, and it
22 settled. But, in the rough weather, that could get
23 stirred up into the fuel system.
24 And I know from my last experience that that
25 could be -- you have to clean the strainers more

1 frequently. Because it's getting into the strainers.
2 It's mixing in with the regular fuel system.
3 MR. KUCHARSKI: On the Puerto Rican run, did
4 the chief engineers ever complain about the quality of
5 the actual fuel and the way they got to API?
6 CAPT HEARN: I wasn't always involved in
7 those discussions. But I might have been present. And
8 I know that there was discussions about quality of
9 fuel, API, fuel testing. Fuel samples were taken every
10 time to be tested.
11 So, it was something you have to discuss
12 with them to get a better feel for that.
13 MR. KUCHARSKI: I'm going to hold there
14 before we move off topic. Any -- Tom? Yes, please.
15 MR. ROTH-ROFFY: Yes, Tom Roth-Roffy. Just
16 going back to the fuel issue.
17 CAPT HEARN: Yes, sir.
18 MR. ROTH-ROFFY: I understand the ship had
19 one fuel settler tank.
20 CAPT HEARN: Yes.
21 MR. ROTH-ROFFY: And in your experience is
22 that a common arrangement for vessels to have, steam
23 plants to have a single settler?
24 CAPT HEARN: That class yes, of course. I'm
25 trying to -- I've been on a few other steam -- I've

1 been captain of about a dozen ships. Most of them were
2 steam. A couple were diesel.
3 The ones that I remember only had one.
4 Where I knew where the tank was. Where I was on the
5 ship long enough to get to know it that well, had one
6 settler.
7 MR. ROTH-ROFFY: So, if you were to have
8 say, water or sediment contamination problems in your
9 single settler, what were the options to address the
10 problem you're experiencing. For example, loss of
11 fires or clogging the strainers.
12 Was there anything you could do other then
13 clean the strainers? And what else could you do?
14 CAPT HEARN: Well, they would change suction
15 in the tank to go to a different suction line. And
16 hopefully it would be a temporary problem until they
17 could resolve it, until you got to port and you could
18 get to some service assistance to shut down the
19 settler.
20 And they would use a -- either go to
21 emergency power or find another way to fire up the
22 boilers until we were able to resolve the problem or
23 fix it. I mean, it's a settler and it's a relatively
24 simple device. But, it's essential.
25 And there's probably too many problems that

1 can happen to it for me to tell you, you know, how to
2 fix it. And plus, I'm not an engineer working with it
3 intimately.
4 MR. ROTH-ROFFY: Yes, I understand.
5 CAPT HEARN: Thank you.
6 MR. ROTH-ROFFY: That's all I have. Thank
7 you.
8 MR. KUCHARSKI: Captain?
9 CAPT NEUBAUER: Jason Neubauer, Coast Guard.
10 Sir, I have a question on the point five flip margin.
11 Did the masters have any input on that when the
12 decision was made? Or was it more a company decision?
13 CAPT HEARN: Yes. No, the masters did. We
14 talked -- I remember I was in the discussion.
15 CAPT NEUBAUER: And was that ever written
16 down anywhere? Or was it informal?
17 CAPT HEARN: There was probably email
18 correspondence. I don't remember company doctrine on
19 that or company documents. But, they may have existed.
20 It was just coming into focus or into use,
21 you know, where it was pretty consistent that we got to
22 that point in my last years at the company.
23 CAPT NEUBAUER: Sure. And you mentioned
24 that was in fair weather conditions. Was it an option
25 for you to deny cargo to increase the GM margin? Was

1 that something that you could do as a master?
2 CAPT HEARN: Yes. Well, I would definitely
3 have to tell the company that we have other option --
4 we have other issues here.
5 You know, and that's again, the complexity
6 of a voyage plan and what you're trying to do to run
7 the company to make it profitable. Keep it safe, keep
8 it reliable for the next voyage.
9 It could get to the next level, but I didn't
10 have that problem. Mostly I had good weather runs to
11 make that decision. But, it's part of my
12 responsibility to do that.
13 CAPT NEUBAUER: That's all I have.
14 CAPT HEARN: Yes, sir.
15 MR. KUCHARSKI: On the telephone, any
16 questions?
17 (No response)
18 MR. KUCHARSKI: Okay. I'd like to still on
19 the topic of stability, talk about the water tight
20 doors.
21 CAPT HEARN: Okay.
22 MR. KUCHARSKI: The main cargo doors and
23 then also the scuttles. Were there any problems --
24 let's start off with the main water tight doors, the
25 big cargo doors where you could -- you had talked about

earlier, you drive the trailers through.

Any problems with the water tight doors?

CAPT HEARN: Everything -- those ships were unique with that that I know of. So, if there was a problem, it was something that we would consider a routine.

You know, whether it was maintenance use. They were prone to damage from cargo work. Because the cargo is driving through and they were out in the cargo area swung open.

They were very big, large, heavy doors. So, they -- if the ship worked a lot, or as they aged, the gaskets were used regularly. The dogs were used regularly. So, there was wear.

The hydraulic systems on them that operated all that and the ram to open them was operated regularly. So, they were prone to, you know, normal wear and tear that would be -- required maintenance.

So, it was routine to work on those doors. And the gaskets were very, you know, all around this very large door, very difficult to get to.

So, they were only used, you know, worked on about once a year. And when we got around the time of inspection for those doors to make sure that they were attaching correctly and meeting the lip or the seal of

1 the door to secure properly.
2 And then they had dog plates that came over
3 the door. That we call them dog plates, but it's
4 really like a ramp for the cargo to drive in and out
5 and not damage the door, the door seal at the bottom.
6 And they would protect that, the door seal.
7 And they would drive in. Then we'd flip them back in
8 and out of the way. They constantly were getting hit
9 and damaged. Because it's quite a bit of shock.
10 There's tractor trailers with those roll up
11 boxes hitting them and things like that. So, they
12 could be damaged.
13 So, that's the overall of those doors.
14 MR. KUCHARSKI: Were there any doors that
15 were more subject to being hit or damaged?
16 CAPT HEARN: Yes. Number one, on the second
17 deck. Because that was where the most fine of cargo
18 went by it. So, that would be the one that would get
19 -- it was exposed to more damage.
20 MR. KUCHARSKI: And where was number one
21 located?
22 CAPT HEARN: Number one is on the second
23 deck forward going down into number one hold, number A
24 hold they call it.
25 MR. KUCHARSKI: Were the doors routinely

kept closed when the ship put to sea?

CAPT HEARN: Yes.

MR. KUCHARSKI: And was there somewhere to cite that?

CAPT HEARN: That ship on the main deck, and what you would call the fire control room, we had different -- people labeled it different, different locations. It had an indicator lights to make sure that those doors were closed.

And so you could go to that one location and find out if they were secure for sailing. But that it would be closed, but you didn't know if they were fully dogged. So you really should have to go down and inspect the dogs and make sure that those were also.

The dogs would operate on a hydraulic bar, hydraulicly push bar that a series of dogs will pull this dog, get the door in tight. And they would work in a cycle to bring the door in closed tight. Because it's a big door. It's for a tractor trailer to go through.

MR. KUCHARSKI: You mentioned earlier about the situation on the Westward Venture where there was water in number three, --

CAPT HEARN: Yes, sir.

MR. KUCHARSKI: Two-A and two it went into.

1 CAPT HEARN: Yes.

2 MR. KUCHARSKI: And it went through water

3 tight doors, it leaked through the water tight doors?

4 CAPT HEARN: They're water tight doors, but

5 how water tight, I mean, I don't think they can take

6 much pressure. They'll slow it down.

7 But, you can hope to get those dogs really

8 tight and secured. I don't know, looking back on that

9 situation what the exact condition of those dogs and

10 the gaskets were.

11 But that ship at the time was nine or ten

12 years old. And we were just about to get into a new

13 cycle of reinvestment and inspection of doing a better

14 job.

15 So, it could have been that they were a

16 little bit out of maintenance. But, it's a big job to

17 maintain those doors. You know, you have a very, very

18 large gasket. And the dogging system.

19 And it -- I would -- that's a suspicious

20 thing if there's water getting from one hold to the

21 next. But, it's pressure on the door, it can leak

22 through. It's water.

23 You know, if there's any way for it to get

24 up there, it will find it.

25 MR. KUCHARSKI: Is there a cargo type, large

1 water tight door leading from the second deck into --
2 directly into number three hold?
3 CAPT HEARN: No.
4 MR. KUCHARSKI: Were there any problems with
5 cargo being stowed too close to the water tight doors?
6 CAPT HEARN: Rarely.
7 MR. KUCHARSKI: Could you please go back to
8 the scuttles. Was it difficult to secure the scuttles?
9 CAPT HEARN: No. It was relatively easy.
10 You just flipped it over. It's heavy. But, you push
11 it to and you pull the hand wheel tight with a dog.
12 It's ten seconds or less.
13 MR. KUCHARSKI: If that scuttle wasn't
14 dogged, would it be capable of being opened in a roll
15 of the ship? A pure roll of the ship?
16 CAPT HEARN: Probably not. It's a heavy
17 scuttle door, hatch. And it would take quite a shock
18 to lift it.
19 MR. KUCHARSKI: What kind of shock are we
20 talking about? Would it be water? Would it be
21 something else?
22 CAPT HEARN: Slamming of the hull. Where
23 like we talked about with the cur -- where the ship
24 comes basically out of the water briefly and then slams
25 back down due to wave action.

1 The typical place that happens is on the
2 bow. And I've seen it damage bottom platting that's
3 one and half inches thick to a ship.
4 It's -- and it can lift cargo up because as
5 the ship's going up that cargo's with it -- not
6 suspended, but it's up there with the ship and then the
7 ship falls. And the cargo will fall with it. But
8 maybe not at the same moment.
9 And there's stress on those lashings. And
10 when it slams, it -- everything jumps. If you imagine,
11 if you can imagine, ten thousand tons or twenty
12 thousand tons slamming into a wave, it can move things.
13 So, that's the slamming I'm talking about.
14 MR. KUCHARSKI: And you would see that
15 mostly in the -- it could happen up forward?
16 CAPT HEARN: Mid body rare. But, if you
17 take quite a shock, you'll feel it entirely through the
18 ship. But, it would have to be a heck of a slam mid
19 body for that hatch to flip open.
20 MR. KUCHARSKI: Is there anything else that
21 could conceivably open up a scuttle at the mid body
22 area? Say number three hold?
23 CAPT HEARN: A person. I don't see anything
24 else doing it. I don't see a wave getting in there and
25 lifting it. Even if it was not dogged.

1 It's around the corner. It's in a protected
2 area. I've been in those conditions where the water
3 comes into you and I'm standing right there. And it's
4 a slow motion, fill up of water around you.
5 So, you can hang on and the water just comes
6 up, you know, to chest high. But, it's not going to
7 lift that scuttle. I've never seen that.
8 MR. KUCHARSKI: And this would be, when you
9 say lift the scuttle or even the shock, that would be
10 if the scuttle were not properly secured?
11 CAPT HEARN: If it was just sitting on top
12 of the hatch but not dogged down tight. You know, if
13 you're talking about is it drifting on there and could
14 it be lifted up and opened.
15 I've been in those spaces where you take on
16 a lot of water. But there's not enough force to lift
17 100 pounds, or 50 pounds even, up around that corner.
18 It's -- you'll float up, but it won't lift
19 anything. Slamming would. Slamming's different. If
20 the ship slammed in that direction, because it's a
21 shock.
22 (Loud bang on table)
23 CAPT HEARN: That's what it does. Sorry
24 about that. But, you saw how things lift from that
25 slam, you know, of the table. And things just lift up.

1 So, that could cause it. And that would
2 probably be the most reasonable thing that would cause
3 it, is a slam.
4 MR. KUCHARSKI: During your time on the
5 vessels, both as chief mate and master, especially as
6 chief mate, did you see any cargo break loose on the
7 second deck?
8 CAPT HEARN: Yes.
9 MR. KUCHARSKI: Did you see it hit the
10 scuttle area?
11 CAPT HEARN: That scuttle -- most of the
12 scuttles are fairly protected. They're in the side --
13 very close to the side shell.
14 When we've had trouble with cargo operations
15 and the scuttles were opened, we changed the
16 arrangement so that it couldn't be damaged. That's not
17 to say that a piece of cargo can't find its way into an
18 area, because it could break free or shatter and cause
19 other damage.
20 And you're not there to see it. Especially
21 in that mid body area. Where if you've got water and
22 say a tire is rolling around in there, would that hit
23 it and that possibly lift it or create something?
24 Maybe debris would push up on it.
25 It would take, you know, this happening and

1 that happening, and a couple of what if's to create
2 that possibility. But, you have damage, you have
3 water, you have force, things happen that, you know,
4 you don't always imagine.
5 And some of those I've seen, and some of
6 course I haven't.
7 MR. KUCHARSKI: Now the scuttles on the El
8 Faro in number three hold, let's just look at number
9 three hold. Did -- can you talk about how they
10 actually were secured?
11 CAPT HEARN: Well, they would be secured for
12 sea.
13 MR. KUCHARSKI: No, the physical. How it
14 was secured.
15 CAPT HEARN: It was a hand wheel and we had
16 discussed earlier, and where I remember there were four
17 bars that went out in four directions so that they were
18 -- as you turn a wheel they went out into a little
19 small opening, in what I would call the hatch coming or
20 it's a built up structure like a pipe coming out of the
21 deck.
22 And it would dog into them. And when you
23 dog it in, it would bring the door, that hatch cover a
24 little tighter around that rubber gasket that would
25 seal it.

1 That's perfect condition.
2 MR. KUCHARSKI: And on other vessels they
3 had -- of the same class, they had a different dogging
4 arrangement for those scuttles?
5 CAPT HEARN: Over the years, some of the
6 original scuttles were changed with different types.
7 Whatever they could find, because they'd always make
8 the same one.
9 And so there's multiple different types
10 probably on the ships.
11 MR. KUCHARSKI: On the Ponce class ships?
12 CAPT HEARN: On the Ponce class ships, yes.
13 Of that type of scuttle arrangement that would secure
14 that.
15 MR. KUCHARSKI: Were they all a wheel type,
16 the other ones?
17 CAPT HEARN: The ones that I remember had a
18 wheel. There may have been a scuttle that had a little
19 more of a lever that I can't recall offhand. But, I
20 think most of what I remember had a wheel.
21 MR. KUCHARSKI: If the wheel were turned and
22 they were properly dogged, would you be able to site
23 the wheel and tell?
24 CAPT HEARN: No. You should walk up to it
25 and secure it. Pull on it.

1 MR. KUCHARSKI: You had to pull on the
2 wheel?
3 CAPT HEARN: Yes. You had to pull on -- you
4 had to lift up on it to tell.
5 MR. KUCHARSKI: Did you have any experience
6 where those -- the ones, the wheels on the vessels,
7 there was difficulty in securing them?
8 CAPT HEARN: Yes. It's a maintenance issue.
9 There's wear and tear and mechanical parts. Probably
10 one of the most used pieces of equipment on the ship,
11 even though you don't think about that.
12 They're opened almost daily sometimes to
13 check the holds and check the cargo in the holds. And
14 in port repeatedly. So, they're getting a lot of work.
15 And they wear out.
16 MR. KUCHARSKI: The -- well, let me stop and
17 -- on these, particularly on the scuttles. And see if
18 there are questions around the room. Jon?
19 MR. FURUKAWA: John Furukawa, NTSB. So in
20 your trip on the Western Venture, that five degree
21 list, one possible scenario, was that the hatch,
22 started site number three?
23 CAPT HEARN: Um-hum.
24 MR. FURUKAWA: That's how all the water got
25 in?

1 CAPT HEARN: Yes.

2 MR. FURUKAWA: So, when you and the first

3 assistant engineer went down to investigate, did you

4 find that -- was that hatch open?

5 CAPT HEARN: Well, it was first reported by

6 the boson. And he told me the hatch was closed and it

7 had been closed. But, he's also responsible to close

8 that hatch.

9 So, there could be that maybe he didn't

10 tell, you know, told a white lie. And we never really

11 resolved it. If somebody went down and found the bilge

12 system and found it open and said oh, hell, I didn't do

13 this right, and they secured it, now we really don't

14 know, you know.

15 And it was so long ago, we're talking '86,

16 '87. So, we don't know. But, that's -- I mean, that's

17 what happened. And that's what we had to live with.

18 But, I know this that those hatches are

19 something you have to watch.

20 MR. FURUKAWA: Okay.

21 CAPT HEARN: Yes. It's a routine thing to

22 go out and check.

23 MR. FURUKAWA: Okay. And the water was

24 mostly in the number three hole. But it --

25 CAPT HEARN: Mostly.

1 MR. FURUKAWA: But it got into number two
2 and number one? Or --
3 CAPT HEARN: It went to two-A and to two
4 hold.
5 MR. FURUKAWA: So it got to three and two.
6 CAPT HEARN: Three hold which is just
7 forward of the super structure and the engine room.
8 MR. FURUKAWA: Um-hum.
9 CAPT HEARN: Two-A hold is the next hold up.
10 And then number two hold, which is the elevator pit
11 hold. It got that far. So, it went through both
12 doors.
13 MR. FURUKAWA: Okay. Eight of water?
14 CAPT HEARN: It was about eight feet. In
15 that quarter on that side. Now, when it washed over,
16 it went down.
17 But, we had to wait for the ship to roll to
18 starboard so we could get to the rows box and climb in
19 there. Otherwise we got washed over, washed around.
20 Which happened anyway.
21 MR. FURUKAWA: Okay. And the water got into
22 number two through the --
23 CAPT HEARN: Through the water tight door.
24 MR. FURUKAWA: Through the water tight
25 doors, the cargo doors?

1 CAPT HEARN: Yes.
2 MR. FURUKAWA: Okay. Thank you.
3 CAPT HEARN: Yes, sir.
4 CAPT NEUBAUER: Jason Neubauer, Coast Guard.
5 Sir, did the El Faro have the same water tight door
6 arrangements between the cargo holds as the vessel we
7 just mentioned?
8 CAPT HEARN: Yes, essentially. They were
9 very identical. Some of the ships had a one door on
10 the third deck on the port side from three hold to
11 two-A. Some did not.
12 But, it was, you know, a cargo arrangement
13 down below decks for rotation of the vehicles so they
14 could get in and out. But some of them did not. That
15 was the only difference in the ships.
16 CAPT NEUBAUER: Do you have an opinion on
17 the condition of the El Faro's doors in that -- through
18 those holds?
19 CAPT HEARN: Well, the ship was -- when I
20 left it, it was laid up. And you know, that's a --
21 these are maintenance issues that should have been
22 attended to. And probably were looked at by the ABS or
23 Coast Guard after it went to reactivate that ship.
24 CAPT NEUBAUER: Okay. Thank you.
25 CAPT HEARN: Yes, sir.

1 MS. BELL: Carrie Bell, NTSB. So, for the
2 water tight door integrity, how do you test that? And
3 how often?
4 CAPT HEARN: There's two tests that come to
5 mind that we did the most. One is a hose test where a
6 person on the outside has a hose. And the person on
7 the inside stands there and they hit it with a hose to
8 see if water comes through.
9 And then the other test that's more common
10 is a chalk test. Where you take a large piece of chalk
11 and you got around the entire knife edge of the seal.
12 And then you close the door, dog it against
13 the gaskets to see if it gets good contact. And then
14 you pull it away. And then you inspect the gasket to
15 see if you've had full contact.
16 And if you have not, typically what we would
17 do is pull the gasket out, put material behind it to
18 push the gasket out. And then try it again.
19 MS. BELL: How often was that done?
20 CAPT HEARN: It's a required, a regulatory
21 inspection to do. I think it's at least every two
22 years. But, I'd have to, you know, look at a
23 regulations manual to be sure.
24 MS. BELL: Okay. Thank you.
25 CAPT HEARN: You're welcome.

1 MR. KUCHARSKI: On the telephone? On the
2 scuttles or the water tight doors?
3 MR. [redacted] Coast Guard.
4 I'm not sure, I toured the El Yunque. But the elevator
5 that's up forward, is that part of the water tight
6 integrity of the second deck? The water tight deck?
7 CAPT HEARN: It's in number two hold, the
8 cargo elevator.
9 MR. [redacted] Yes.
10 CAPT HEARN: So, it's in a water tight
11 compartment. And the elevator operates from the tank
12 top to the third deck. And the tank top is of course
13 the lowest level, the third deck.
14 And then there's a ramp from number one up
15 to the second deck. So, it's below the second deck.
16 And there's cargo doors from one into it. There's no
17 cargo doors from the second deck down to the number two
18 hold where the elevator is.
19 MR. [redacted] Okay. Thank you for that
20 clarification, Captain.
21 CAPT HEARN: Yes, sir.
22 MR. KUCHARSKI: On the telephone, any other
23 questions on the scuttles or the water tight doors?
24 CDR [redacted] I've got one question. This is
25 [redacted] with the Coast Guard. Captain, how often at

sea, how common was it to make a round and check to make sure all the hatches were secure?

CAPT HEARN: It should be checked every evening by the boson.

CDR [redacted] So, once a day by the same person every day?

CAPT HEARN: Typically. But, the chief mate would also make a round and check and see what was going on. People weren't really authorized to go into those cargo holds unless we knew about it.

And in heavy weather I was in the habit of also walking the second deck. I would try to be the last person around to make sure I knew what was going on down there.

CDR [redacted] Thank you.

CAPT HEARN: Yes, sir.

MR. KUCHARSKI: Any other questions on the phone regarding the water tight doors or scuttles?

MR. MILLAR: Mike Millar with ABS.

MR. KUCHARSKI: Hey Mike, speak up a little bit.

MR. MILLAR: Yes, sir. Captain, you had mentioned earlier that you would -- and I want to make sure I understood, you were on the second deck and you had water up to your waist?

1 CAPT HEARN: Yes.
2 MR. MILLAR: On the second deck near the
3 scuttle?
4 CAPT HEARN: Yes.
5 MR. MILLAR: And so the water does
6 accumulate on that second deck area?
7 CAPT HEARN: Yes, sir.
8 MR. MILLAR: And were there conditions that
9 that was conducive to accumulate that water? Or was
10 that just normal wave action through the airports on
11 the sidings of the hold?
12 CAPT HEARN: If you had deep water it was
13 temporary. It would happen very quickly and it would
14 go out. It ran through the openings, those same hole
15 openings. It would drain off.
16 Plus, it would only be local because it just
17 filled in in that area. And then it would level across
18 the deck. So it, you know, believe it or not, it's
19 just temporarily held up by the cargo and whatever else
20 is in the space until it starts to run under the
21 trailers and across the deck.
22 So, it's -- it happens relatively quickly
23 within seconds. But, you can have it that high.
24 Because those openings can fill up with sea water.
25 MR. MILLAR: So, in heavy weather or when

1 the ship's rolling, it would be not uncommon to have
2 water ship onto the top of the free board deck in the
3 way of that scuttle?
4 CAPT HEARN: Yes. That's correct.
5 MR. MILLAR: And when you said water up to
6 waist high, the height of that scuttle that leads to
7 the number three hold on the starboard side, how high
8 would you recall that scuttle from being from the deck?
9 CAPT HEARN: About 18 inches.
10 MR. MILLAR: And so the duration of the
11 water that would be above the scuttle would be five,
12 six seconds?
13 CAPT HEARN: Yes. You get a barrel or two.
14 MR. MILLAR: Okay.
15 CAPT HEARN: You know, a plug of water would
16 run down that pipe. And then it would dissipate. If
17 it was wide open.
18 MR. MILLAR: Yes, okay. So if it was wide
19 open there would be a -- okay. I'll turn it back over
20 to Mike Kucharski.
21 CAPT HEARN: Okay.
22 MR. KUCHARSKI: Okay --
23 MR. [redacted] Hey Mike, this is [redacted]
24 [redacted] I have a follow up for Captain Hearn.
25 MR. KUCHARSKI: Yes, sure. Go ahead.

1 MR. [redacted] When you talked -- in response
2 to Commander [redacted] question about checking the hatches
3 and every evening and the boson and those
4 responsibilities, you said that you walked the second
5 deck to check the condition of the ship.
6 In your opinion, is that a matter of just
7 style of operation of a shipboard officer? Or is that
8 a matter of necessity for the safe operation of the
9 vessel?
10 CAPT HEARN: It was my style to. Especially
11 any condition that was a change in the normal routine,
12 those extra precautions would start clicking off in
13 mind about what should be done.
14 Like I said, you have to manage your
15 priorities. If I knew heavy weather was coming or
16 heavy swells, and I was -- or if I had just a concern
17 or a feel that the guys were tired, I might go take a
18 second look at those conditions to make sure that they
19 had a back up set of eyes.
20 And I'm experienced, so I would -- I could
21 do it in a few minutes. It wouldn't take long.
22 MR. [redacted] So, you're talking about
23 physically attending the hatches, the scuttles, to make
24 sure that from your point of view, those unusual
25 circumstances, the risk was mitigated. Is that

1 correct?

2 CAPT HEARN: Yes. Yes.

3 MR. [redacted] Thank you.

4 MR. KUCHARSKI: Good. I did --

5 CDR [redacted] This is Commander Mike [redacted]

6 I've got a follow on question to that also. When you

7 went out as the Captain and walked the deck and kind of

8 did that follow up, do you think that affected the

9 moral of the officers in that they felt like you were

10 checking up on them?

11 CAPT HEARN: Most of my relationships were

12 good relationships with the officers. Many times I did

13 this at night when it was quite. I would tell the

14 bridge watch I'm going to go check the deck or take a

15 sweep.

16 Sometimes I may walk in the guy, sometimes I

17 didn't. I can understand where that might affect a

18 guy. But, if it was just an irregular and a second

19 concern, it was usually -- I would hope it would be a

20 relief that they have somebody double checking and

21 helping them.

22 And if it wasn't, then I wouldn't be worried

23 about the moral. I'd be worried about my relationship

24 with the officer.

25 CDR [redacted] Thank you.

1 CAPT HEARN: Yes, sir.

2 MR. KUCHARSKI: This is Mike Kucharski.

3 Jack, the scuttles, do they have any kind of a weight

4 or cantilevered type of set up on there?

5 CAPT HEARN: Not that I recall. I've opened

6 scuttles like that. But, none of those on the second

7 deck that I remember had anything like that.

8 MR. KUCHARSKI: When they popped op -- when

9 they were opened, was there any method of keeping them

10 opened?

11 CAPT HEARN: Sometimes -- some of them where

12 near a bulkhead where they didn't close completely, and

13 they might slide closed again. Or -- so we would tie

14 them back to make sure.

15 But, for the most part, they were flipped

16 all the way over to the deck.

17 MR. KUCHARSKI: Last go around on the

18 scuttles or water tight doors before we move into the

19 next topic area.

20 MS. BELL: This is Carrie Bell, NTSB. So,

21 the indicators for the water tight doors, so if you had

22 done a test on one and found it was not fully water

23 tight, --

24 CAPT HEARN: Um-hum.

25 MS. BELL: Would you go back and check and

1 see if the indicator indicated that that was not the
2 case? Or if it was telling what you expected it to
3 say?
4 CAPT HEARN: No. Usually the indicators
5 were just a quick visual indication that nobody had
6 tampered with the doors and had gone through or into
7 them.
8 So, if you were making a round and you might
9 say, all the lights are -- you saw a red light and
10 there were several greens on, well you'd see a door's
11 been opened. And depending on the hours, and if you
12 knew what was going on deck, you might go down and
13 inspect that area and see why is this door open.
14 Because a crew member might move it, open it
15 to move cargo through, or move equipment through, or
16 excuse me, tools, and then forget to resecure it. Or
17 they may still be there. So, you would double check.
18 But, as far as if you had difficulty or
19 repairs to a door that lights almost not even the
20 issue. The issue was the repair until it's complete.
21 Because those doors are important. So you
22 make sure that they're in good condition as well as you
23 can.
24 MS. BELL: So, if the door was not -- my
25 question is more along the lines of if that indicator

is actually indicating that so maybe the door is open, is there a possibility that the light might not be on?

CAPT HEARN: It -- well, the light bulb could burn out. We've had that. And you just --

MS. BELL: Yes.

CAPT HEARN: Put a new bulb in. Because it's out. Both lights might be out.

MS. BELL: But there's kind of a sensor though, right? So, there appear --

CAPT HEARN: No. If say the green light was out, the bulb was out and the red light's out, you don't know if it's opened or closed.

MS. BELL: So, is there a sensor on the door somewhere that could be faulty? That's --

CAPT HEARN: It could be the sensor on the door also. That the door's closed or open. And it's not working to send the signal to the light.

And you know, what would happen to those lights? I don't know. Probably it would just show open. But, it -- I mean, would it show closed and be open? I doubt it. You know, I think that it would probably go out.

But, I've never -- I don't remember problems with the sensors that much. Those are pretty -- it's a pretty simple, you know, limit switch that pushes over.

1 So, it's a good question. And I don't know
2 the answer. This would be a maintenance issue we'd
3 probably discover pretty quickly.
4 Because it's routine to close the doors,
5 check the lights, check the lights on routine rounds.
6 It's one of those things you kind of look at a lot.
7 MS. BELL: Okay. Thank you.
8 CAPT HEARN: Yes, ma'am.
9 MR. ROTH-ROFFY: Tom Roth-Roffy. Just to
10 follow up on that indicating panel that indicates the
11 statue, open/closed status of the doors.
12 CAPT HEARN: Yes.
13 MR. ROTH-ROFFY: Did it also indicate the
14 status of those scuttles?
15 CAPT HEARN: No.
16 MR. ROTH-ROFFY: Okay.
17 CAPT HEARN: The scuttles were visual
18 inspection only.
19 MR. ROTH-ROFFY: Okay.
20 MR. KUCHARSKI: Last call for now on
21 scuttles or water right doors?
22 MR. FURUKAWA: One more. Last one. On the
23 El Yunque --
24 MR. KUCHARSKI: Jon Furukawa.
25 MR. FURUKAWA: Oh, Jon Furukawa, NTSB. On

1 the El Yunque, going from, I think, it was number three
2 to the engine room, or the engine compartment, when
3 you're doing your rounds at sea, would that door often
4 be open? Dogged open?
5 CAPT HEARN: It should be dogged closed.
6 But, it's hot on that run. And quite often those guys
7 would leave the door open to get a little more air
8 through there.
9 And they kept dumpsters on there also for
10 garbage. So they might walk through. They did the
11 same thing on the El Faro. And we tried to keep those
12 doors closed.
13 But it was a -- and sometimes a concern.
14 But, the agreement came that if there was any kind of a
15 problem, one of the first actions the engineer on watch
16 would take would be to secure that door so that it was
17 water tight in the engine room.
18 MR. FURUKAWA: I notice there was some
19 cigarette butts around that area too. So, that was
20 kind of like a smoking area?
21 CAPT HEARN: Possibly. They, you know, the
22 longshoremen smoked in the holds also on the ships.
23 MR. FURUKAWA: Okay. Thank you.
24 MR. KUCHARSKI: Okay Jack, were you aware of
25 any changes to the draft marks during or after the El

1 Faro's conversion to con-low?
2 CAPT HEARN: I wasn't there for the
3 conversion. So, I don't -- I would expect that the ABS
4 survey managed that. And I wasn't aware of any change
5 in the draft mark. There could have been one. I don't
6 know.
7 MR. KUCHARSKI: Do you remember what the
8 maximum draft was of the vessel when you were sailing
9 on there as a RORO, as opposed to when --
10 CAPT HEARN: I think the maximum draft was
11 about the same, 30.06 is what I remember in those.
12 MR. KUCHARSKI: Did you ever express
13 concerns about vessel stability to shore-side
14 management?
15 CAPT HEARN: The only discussion was around
16 that point five margin that we resolved to work with to
17 get as much cargo to Puerto Rico as possible. Other
18 then that it was usually, you know, a routine voyage
19 and routine conditions. Because it was the same load
20 and the same expectations of the ship of cargo and
21 stability every voyage.
22 But when we got close to that margin that --
23 it was a discussion for a while. You know, how close
24 can we get? And what do we feel safe with?
25 And the other captains on the other ships

1 came up to about the same conclusion that we did on the
2 El Faro that point five seemed to be working okay. You
3 had enough reserve stability above your required
4 stability to make us feel comfortable.
5 MR. KUCHARSKI: The -- when was your first
6 chance to review stability onboard the vessel?
7 CAPT HEARN: My first chance?
8 MR. KUCHARSKI: Yes, the first chance after
9 the -- at the loading point?
10 CAPT HEARN: After we loaded. We would get
11 --
12 MR. KUCHARSKI: It was after you loaded?
13 CAPT HEARN: Yes. The loads would be
14 completed. We would come into the loading for like
15 Jacksonville. And the load -- the cargo wasn't even in
16 the port yet. It was still coming. So, you didn't
17 know all the cargo you were going to get.
18 And they would have an anticipation or
19 pre-plan. But the final would not be done until you
20 were completely done. And then they would send it to
21 you.
22 So, it would be after you were complete with
23 the cargo.
24 MR. KUCHARSKI: And during your time as
25 master on those vessels, did you ever review the

1 stability prior to sailing and say that there's a
2 problem?
3 CAPT HEARN: If we had -- I didn't review it
4 prior because we didn't have it. But, if it was a
5 concern, it would -- it was not uncommon for Don
6 Matthews or Bill Wisenborn or people that work there to
7 let me know if there's an issue or we're concerned
8 about doing this.
9 And we would discuss how to manage it. And
10 I remember a fairly good relationship with Don about
11 that kind of discussion. It could also be about
12 hazardous cargo.
13 It could also be about other kinds of
14 concerns with the cargo operation that would fall under
15 my particular responsibility or concern. Most routines
16 were handled by the chief mate. And he was the chief
17 cargo officer also.
18 That issue around the stability was one that
19 we were negotiating voyage after voyage. Because it
20 was new to be able to carry so much cargo and try to
21 push this the way we were getting close to the limits.
22 And so we -- it was discussed beforehand
23 what the limit was. That's why it was important to
24 come up with a number. So that if they had to, they
25 would take cargo off.

1 And I've seen them take cargo off. You
2 know, that they had too much cargo in the port we
3 couldn't carry it all.
4 MR. KUCHARSKI: So, they took cargo off
5 while you were onboard the vessel? They took cargo off
6 the vessel?
7 CAPT HEARN: Yes.
8 MR. KUCHARSKI: Because of stability
9 concerns?
10 CAPT HEARN: Because they had loaded it.
11 And then other cargo was a priority. But they knew
12 that they had a limit and they didn't just put all the
13 additional cargo on, they took cargo off.
14 MR. KUCHARSKI: So, they took that cargo off
15 and put another piece in its place?
16 CAPT HEARN: Yes. But they didn't over
17 capacity the ship by calculation.
18 MR. KUCHARSKI: Did you ever ask or an
19 increased stability margin beyond the half a foot?
20 CAPT HEARN: Not that I recall. Like I
21 said, that was a voyage by voyage agreement. To me it
22 was anyway. Because depending on the conditions of the
23 voyage you might ask for something else.
24 But there was other option to be able to
25 manage that, like a different route if you had weather.

1 And fuel, we might get, you know, the fuel that we
2 needed and things like that.
3 MR. KUCHARSKI: So you never had the company
4 take any cargo off after reviewing the stability
5 information?
6 CAPT HEARN: No.
7 MR. KUCHARSKI: What was the principal
8 method you used to calculate or evaluate stability on
9 the vessel?
10 CAPT HEARN: Well, the chief mate calculated
11 stability. And would give me a copy of the
12 calculations. And I would review that every voyage,
13 northbound -- every port, not matter what it was.
14 So, I would get a report, you know, of the
15 calculations and where the ship was, the condition of
16 the ship, stress and stability. And the other
17 indication is your feel of the ship.
18 Which, not to add to this, but like the
19 tender ship or the stiff ship, things like that that
20 you're -- the ship handling side of it that you're
21 wondering about with the ship. Because something could
22 change that wasn't calculated that you would try to be
23 aware of.
24 Like that five degree list that day. Or
25 something, if the ship could become sluggish and it's

1 not making the speed you need. You're wondering if
2 you're picking up tonnage or is there something else
3 that's a concern.
4 MR. KUCHARSKI: I just want to -- I'm going
5 to ask a question again. You know, as far as
6 calculating the stability. And maybe let me ask it a
7 little bit differently.
8 CAPT HEARN: Okay.
9 MR. KUCHARSKI: Did the -- was the chief
10 mate the one --
11 (Phone disturbance)
12 MR. KUCHARSKI: Could you mute your phone
13 please? Thank you.
14 Did the chief mate actually calculate the
15 stability --
16 CAPT HEARN: Yes.
17 MR. KUCHARSKI: Prior to sailing? Or was he
18 provided something?
19 CAPT HEARN: After sailing he was given all
20 the cargo numbers.
21 MR. KUCHARSKI: After sailing?
22 CAPT HEARN: Yes. But Don Matthews had
23 already done it there. So, my understanding was that
24 it was going to work, and it typically did.
25 You know with all the con -- the chief mate

1 would give him all the conditions of the ship, but he
2 would still do it again himself on the ship.
3 MR. KUCHARSKI: So, prior to sailing, cargo
4 close out, the chief mate then calculated all the
5 stability?
6 CAPT HEARN: No. It would -- we would
7 finish cargo, go fore and aft and sail the shift. And
8 the chief mate would start working on stability
9 underway.
10 He would get those figures and calculations
11 and start putting them into the system.
12 MR. KUCHARSKI: So he didn't get any kind of
13 a -- anything to just upload directly into the
14 stability computer?
15 CAPT HEARN: I think towards the end that
16 system did upload it. But he would still double check
17 everything and give me a copy. The Cargo Max system.
18 Because I'm going through changes of
19 technology here. And I think towards the end they were
20 doing it completely and the chief mate would review it.
21 And then give it to me to review.
22 MR. KUCHARSKI: I'd like to move into Cargo
23 Max now unless there are questions, other questions.
24 Actually, let me pause on that. One more question.
25 This is Mike Kucharski again.

1 What is the maximum wind heel you experience
2 on the El Faro?
3 CAPT HEARN: Wind heel?
4 MR. KUCHARSKI: Wind heel.
5 CAPT HEARN: Negligible. I don't remember
6 heavy wind heel with that ship. Even with a full load
7 of containers. Maybe three degrees.
8 MR. KUCHARSKI: And what kind of wind speed
9 were we talking about?
10 CAPT HEARN: Thirty, 40 knots.
11 MR. KUCHARSKI: And what's the maximum wind
12 speed you were on on the El Faro?
13 CAPT HEARN: Probably 50 or 60 in that storm
14 off of Gibralter. But, you take the wind typically on
15 the bow. You've taken the seas on the bow. So, you're
16 not going to feel a side wind heel.
17 And that -- on that voyage it was -- I
18 didn't have containerized cargo on the upper decks.
19 MR. KUCHARSKI: Any questions on stability
20 calculation or wind heel before I jump into Cargo Max?
21 MR. ROTH-ROFFY: Just -- Tom Roth-Roffy,
22 NTSB. A quick question about the GM margin that I
23 understand on the Puerto Rican run is point five?
24 CAPT HEARN: Yes, sir.
25 MR. ROTH-ROFFY: What about your other

1 operations in the vessel in perhaps in Alaska or the
2 Mid East? What sort of margins were you trying to
3 maintain?
4 CAPT HEARN: We didn't have to worry about
5 that. When the Alaska run was a different
6 configuration of the ship. And the -- not a limiting
7 factor, but the key factor we always looked at was
8 stress, hull stress.
9 Because the ship hogged quite a bit. And we
10 were always concerned, in fact we did have fractures on
11 the hull. But, that was on the Alaska run with that
12 type of configuration.
13 Once they put the fixed ballast in and they
14 went containerized, and you had all that extra weight
15 in the mid-body, we didn't have stress problems. And
16 for the most part on the Mid East run, we didn't have
17 GM issues.
18 It was only those full loads going to Puerto
19 Rico that we had the margin concern.
20 MR. ROTH-ROFFY: Okay. Thank you.
21 CDR [redacted] This is [redacted] [redacted] with the
22 Coast Guard. That point five foot GM margin, you
23 mentioned earlier that that was for good voyage, i.e.,
24 a voyage with good weather.
25 What would you, in your experience, have

1 wanted for GM margin had you been sailing in rougher
2 seas? Let's say this type of vessel loaded down as
3 much as it was in some of the heavier seas that you
4 would have seen in Alaska?
5 CAPT HEARN: You know, it's a hypothetical,
6 this kind of a question. Because now we're in Alaska
7 with the same ship that didn't operate up there. And
8 we're talking about voyage experience and how you're
9 handling it.
10 And that might change because we're talking
11 about a hypothetical situation. But I can tell you
12 that you always want more reserve GM. And you have to
13 plan on some of the worst case scenarios the first
14 times you do these types of voyages.
15 So, if you're planning on going out into
16 rough weather or your voyage is almost certainly going
17 to have rough weather, you're going to burn extra fuel
18 because you're going to be slowed down. You're going
19 to lose a little bit more GM margin.
20 It's just the nature of that problem. And
21 because you're out at sea longer. Or you're going to
22 route around it. Which is also going to add fuel burn
23 and cost you margin.
24 So, that -- those aren't hypothetical
25 issues. Those are factors that you have to put into

your voyage plan or your consideration. But, you know, how much margin would I want? As much as I can get.

And otherwise, you know, once you get into a situation where it's beyond hypothetical and you're really dealing with it, you have to -- we've passed that. And I don't really know what to tell you.

I can't commit to a good answer for you on that.

CDR [redacted] No, that's fine. Thank you.

CAPT HEARN: Thank you, sir. Yes, sir?

MR. FURUKAWA: Jon Furukawa, NTSB. When you sailed -- when you got underway on that voyage where Hurricane Sandy was going through, --

CAPT HEARN: Um-hum.

MR. FURUKAWA: Did you still sail with the point five?

CAPT HEARN: I don't think I had a point five limitation. We -- it was a different route. With that voyage I ended up going offshore and burning a lot of fuel.

And I know that I talked to the chief engineer first about condition of the plant and how much fuel we had. So, we knew that we were going to go extra miles, burn extra fuel and go far offshore. Which we did do.

1 And so did the competitor company. That
2 captain made the same decision.
3 MR. FURUKAWA: Was that a Jacksonville to
4 San Juan?
5 CAPT HEARN: Yes. But that storm was a
6 little closer to Florida. So we wanted to avoid it.
7 And the best place to be was more sea room to maneuver
8 and outrun it.
9 But, once again, your propulsion system's
10 got to be very reliable because you're far from help.
11 MR. FURUKAWA: Did you go full Bahama
12 channel? Or --
13 CAPT HEARN: I've done that many times. For
14 weather routing and for other reasons. But, normally
15 that was used for weather routing.
16 MR. FURUKAWA: Thank you.
17 CAPT HEARN: Yes, sir.
18 MR. KUCHARSKI: Okay. Any other stability
19 related questions before we go into Cargo Max?
20 MR. STOLZENBERG: Yes, this is Eric
21 Stolzenberg, NTSB Nav Arc. Captain, I was wondering in
22 your experience had you ever taken a role period? Or
23 timed a role period for these vessels?
24 CAPT HEARN: I did.
25 MR. STOLZENBERG: Not quite --

1 CAPT HEARN: I did.
2 MR. STOLZENBERG: Do you have any
3 recollection or documentation of what you had for
4 those?
5 CAPT HEARN: No. I don't. I know that I
6 did it sometimes out of professional interest. And I
7 did it with the cadets to train them. Because there's
8 a formula for it. And we would compare it to the
9 actual.
10 So, I've done it several times. On the
11 Alaska run --
12 MR. STOLZENBERG: And you said the actual,
13 do you mean what you were getting in Cargo Max? Or
14 what an older civilian book had?
15 CAPT HEARN: Yes, sir. That's correct. It
16 was usually within a second or a foot of the GM. It
17 wasn't always perfect. But, we would -- and we would
18 average it.
19 But, it wasn't -- it's not a really good
20 reliable factor. But, it's indication.
21 MR. STOLZENBERG: Okay. Understood. What I
22 was looking for was, it never gave you -- the roll
23 period check never gave you pause to the stability book
24 or the Cargo Max program or other stability instrument
25 you had?

1 CAPT HEARN: The answer to that --
2 MR. STOLZENBERG: When you prepared it.
3 CAPT HEARN: Well, the answer to that is
4 more about the tender ship. It's much slower. But,
5 when you look at your stability you know it.
6 But when you get to that level, you're
7 concerned that there's something else wrong. Because
8 you can't feel it as well. It's so slow that you don't
9 really know if you have other factors changing the
10 condition of the ship.
11 MR. STOLZENBERG: Okay. So, I guess to be
12 clear in my question, clearer then I've been, I
13 apologize.
14 CAPT HEARN: That's all right.
15 MR. STOLZENBERG: Was there anytime when you
16 checked the roll period where you ever unsure that the
17 documentation in the stability book was incorrect based
18 on your roll period comparison?
19 CAPT HEARN: Yes. Like I said, with the
20 tender condition, I was concerned about how tender we
21 were, how close we were, and what was the right
22 decision when we came to that point five margin.
23 So, you know, the accurate -- the best
24 answer I can give you on that is not just by timing and
25 comparison of a calculation, but also by feel of the

1 ship. Because she was tender.
2 MR. STOLZENBERG: Okay. And when you just
3 say tender, that was when you were nearing the point
4 five GM margin?
5 CAPT HEARN: Less then that.
6 MR. STOLZENBERG: And what run was that on?
7 CAPT HEARN: The Puerto Rico run to San
8 Juan.
9 MR. STOLZENBERG: Was that the run for the
10 El Faro? And are we speaking specifically to the El
11 Faro as well?
12 CAPT HEARN: Yes. The El Faro and the El
13 Morro were both -- handled about the same that I
14 recall.
15 MR. STOLZENBERG: And the run that you were
16 on when you felt that?
17 CAPT HEARN: Puerto Rico. And you would
18 feel it more down there near Puerto Rico. You would
19 only lose a couple tenths of a GM. But, you would feel
20 it.
21 MR. STOLZENBERG: Okay. And one last follow
22 up on it. So, did you do it expressly to teach cadets?
23 Or did you also do it to -- when you were nervous?
24 CAPT HEARN: No. You asked me if I had done
25 it. I had done it to teach cadets. So, I -- but then

1 you asked me if I was nervous and -- or if it was a
2 concern.
3 And the second part of that -- or that
4 second question was answered with yes. I was concerned
5 about the heel -- or excuse me, the slow rolling
6 period. Because I had never experienced it with that
7 class of ship. It was a new feel for me.
8 You're talking to a guy with over 20 years
9 on the same run, same ship. And then all of a sudden
10 she's hanging as she turns. Yes, I'm concerned that
11 there's something I don't know.
12 MR. STOLZENBERG: Okay.
13 CAPT HEARN: So, I looked into it. We
14 discussed that close margin. And that's how we
15 resolved what we could live with on good weather
16 voyages and with other conditions being routine.
17 MR. STOLZENBERG: So is it safe to say that
18 you did that in your earlier runs? And -- before you
19 were comfortable with the Puerto Rican run back and
20 forth?
21 CAPT HEARN: It's safe to say I did it every
22 run.
23 MR. STOLZENBERG: Okay. Thank you.
24 CAPT HEARN: Yes, sir.
25 MR. KUCHARSKI: Sure Captain.

1 CAPT NEUBAUER: Jason Neubauer, Coast Guard.
2 Jack, did you, before the point five margin, was it
3 typical to run less then point five feet?
4 CAPT HEARN: No. I wasn't. We weren't
5 getting to those full loads to get to that criteria of
6 a voyage plan and concern until we started carrying
7 heavier loads.
8 And that's when we, you know, noticed it
9 right away. And said well, hey, this is close. And
10 you could feel it with the ship too. Even with a foot.
11 But, we started talking about it right away.
12 CAPT NEUBAUER: And when you felt that
13 difference was it -- what kind of sea state were you
14 experiencing down towards Puerto Rico?
15 CAPT HEARN: You could even be in calm
16 weather. You could feel that heel of the ship on --
17 with just the rudder command.
18 CAPT NEUBAUER: And sir, I want to talk
19 about the fuel levels upon departure from Jacksonville.
20 CAPT HEARN: Um-hum.
21 CAPT NEUBAUER: Did you ever -- were you
22 aware of the fuel tanks being slack or --
23 CAPT HEARN: Yes.
24 CAPT NEUBAUER: Not filled when you
25 departed?

1 CAPT HEARN: They may be. Because we didn't
2 always fuel. So, you would have partial loads of fuel.
3 CAPT NEUBAUER: Okay. Would you say partial
4 loads in like multiple fuel tanks? Or just a pair?
5 CAPT HEARN: Well, hopefully like we talked
6 about remaining onboard, you always had some fuel you
7 couldn't get out. And that would be a heavier, you
8 know, more viscus. Because they usually used the fuel
9 tank until they got everything out of it. They didn't
10 just go between fuel tanks.
11 But, yes, you would have a slack tank. And
12 you might have two slack tanks down there. Normally --
13 and we tried to make sure that got calculated into the
14 Cargo Max.
15 CAPT NEUBAUER: Did you ever raise any
16 concerns about fueling with the company?
17 CAPT HEARN: I raised a concern about the GM
18 limit. And fueling in that discussion was part of it.
19 Because that was a solution. As long as you had extra
20 fuel.
21 So, all those were part of the discussion.
22 You know, so not to make it complicated.
23 CAPT NEUBAUER: But sir, to clarify, did you
24 ask to have your fuel tanks full to help improve GM?
25 Was that part of the discussion?

1 CAPT HEARN: Yes. It would have been. If
2 it would have helped, yes.
3 CAPT NEUBAUER: And what was the company's
4 response?
5 CAPT HEARN: They would do it. Sometimes
6 they -- if they were trying to get more fuel, we would
7 negotiate, okay we can work with this limitation. And
8 we would fuel twice.
9 I don't remember any time where they would
10 not work with you on that to go beyond something that
11 was reasonable.
12 CAPT NEUBAUER: Thank you.
13 CAPT HEARN: Yes, sir.
14 MS. BELL: Carrie Bell, NTSB. A question
15 about the training the cadets, these exercises that you
16 were doing. Was this something that the company
17 encouraged you to do or knew about?
18 CAPT HEARN: No. They -- we carried cadets
19 as just part of the program to help young people. And
20 they had that in their training project. And if they
21 asked me about it, I would, you know, work with them on
22 it.
23 MS. BELL: Thank you.
24 CAPT HEARN: Yes.
25 MR. KUCHARSKI: Okay, on the telephone it

1 sounds like somebody's running water or there's
2 background noise. Please mute your phone.
3 (Telephone background noise)
4 MR. KUCHARSKI: Okay. On the Cargo Max, did
5 you receive any formal training on the use of the Cargo
6 Max?
7 CAPT HEARN: No.
8 MR. KUCHARSKI: Are you aware of any of the
9 personnel that sailed with you that had training on the
10 Cargo Max and it's use?
11 CAPT HEARN: No.
12 MR. KUCHARSKI: Did you use the Cargo Max
13 for other purposes then calculating initial stability?
14 CAPT HEARN: Yes.
15 MR. KUCHARSKI: And what did you use it for?
16 CAPT HEARN: We would use it if we were
17 considering changing ballast or fuel conditions or
18 voyage conditions. We would pump numbers in.
19 MR. KUCHARSKI: Did you use the Cargo Max
20 for sufficiency of any of the securing arrangements?
21 CAPT HEARN: No.
22 MR. KUCHARSKI: Do you know what the wind
23 heel calculations that were used for the stability --
24 using the Cargo Max and the stability manual?
25 CAPT HEARN: I guess that they were in

1 there. We didn't really -- I can say that I didn't
2 look at them because it wasn't an issue that I felt I
3 needed to look at. I didn't have any practical concern
4 with it compared to the other things.
5 MR. KUCHARSKI: Did you use the Cargo Max
6 for damage stability? For the damage stability section
7 that they had?
8 CAPT HEARN: No. I never had to.
9 MR. KUCHARSKI: Okay. I'm going to stop
10 there and see if there are any questions on Cargo Max?
11 MR. CRONIN: How many more questions do you
12 have Mike? You're getting to the end of your -- just
13 for the witness' benefit.
14 MR. KUCHARSKI: Yes. One more page.
15 MR. CRONIN: One more topic?
16 MR. KUCHARSKI: Into management and
17 personnel matters. And then weather, navigation,
18 communication.
19 MR. CRONIN: Captain, do you need another
20 break?
21 CAPT HEARN: Maybe five minutes.
22 MR. CRONIN: Okay. How much longer do you
23 think total? And that's too?
24 MR. KUCHARSKI: Well, you know, I mean, I
25 can -- that was a pretty quick section. But, if you

ask -- I'll ask you if you're going to have add on questions.

You know, if he ramps right through very quickly, probably 20 minutes. If you -- you know, on the scuttles we spent quite a bit of time just going back. But, there were, I don't know, maybe 15 questions just on the scuttles alone, so.

MR. CRONIN: So, we're between one and two hours would you say?

MR. KUCHARSKI: Yes.

MR. CRONIN: Okay.

MR. KUCHARSKI: I would say even if the questions continue.

MR. CRONIN: The weather might have follow ups.

CAPT HEARN: And if you want to leave me alone here, I'll lock up for you.

MR. CRONIN: No, no. That's -- no, no.

MR. KUCHARSKI: Okay. I'm going to put it on -- I'm going to put it on mute and we'll take a five minute.

MR. CRONIN: Yes. That makes sense.

CAPT HEARN: Okay.

(Whereupon, the above-entitled matter went off the record at 5:53 p.m. and returned 5:49 p.m.)

1 MR. KUCHARSKI: Okay, we're back on the
2 record. It's about 5:49 p.m. Continuing with Jack
3 Hearn's interview, and I'd like now to move into
4 management and personnel type items.
5 CAPT. HEARN: Okay, all right. I think you
6 had additional questions on the cargo mac issue.
7 MR. KUCHARSKI: Yes, I did. Yes, I'll ask
8 you again.
9 CAPT. HEARN: I think I stopped you before
10 anybody had a chance to --
11 MR. KUCHARSKI: Okay, are there any
12 questions on the phone on cargo mac's?
13 MR. STOLZENBERG: Eric Stolzenberg, NTSB.
14 Captain, I just have one final question.
15 On the Puerto Rican run, what was your
16 primary reference? Was it a civilian book or the cargo
17 mac's for stability, day-in/day-out stability matters?
18 CAPT. HEARN: Cargo macs.
19 MR. STOLZENBERG: Okay, thank you.
20 CAPT. HEARN: Yes, sir.
21 MR. KUCHARSKI: Okay, Jack, were you master
22 on the Ponce Class -- I'm sorry, did somebody else have
23 a question?
24 MR. MILLAR: This is Mike Millar, ABS.
25 MR. KUCHARSKI: Yes, hi, Mike.

1 MR. MILLAR: Regarding the training on the
2 cargo mac, had you had experience with cargo macs on
3 other vessels or received informal training during the
4 process of becoming a chief mate or other experiences
5 that you would lead you to under -- to have knowledge
6 with the system?
7 CAPT. HEARN: When I was chief mate, it was
8 by -- we did stability by hand. We didn't even have
9 laptops back them.
10 When the cargo mac system was -- I had
11 worked on the -- the Orca class and we had a cargo mac
12 system there, but the chief mates knew it best. I'm not
13 sure if they had training, but I learned it from the
14 chief mates.
15 So, I didn't work with it a tremendous
16 amount and that's why I'm a little bit vague on some of
17 the process of their relationship with the port side of
18 it and getting the information.
19 I know that they -- for quite a while they
20 were working -- they were doing a lot of the
21 calculations themselves and it may be that once we had
22 better satellite transition of data, they were updating
23 it from the shore side and receiving the system,
24 because I know that towards the end, I was getting the
25 stability report very quickly upon sailing.

1 So, forgive me for some of my memory grey
2 areas on this, but like I said, the system changed and
3 evolved. But I never received any sit-down training
4 that I recall with cargo macs.
5 MR. MILLAR: Okay, did you ever find reason
6 to use the stability booklet on the El Faro?
7 CAPT. HEARN: I did. I was the kind of guy
8 that would look at the trim and stability booklet and
9 all the books.
10 But typically, if I looked at the trim and
11 stability book, it would be the rules in the front, the
12 guidelines, because there is rules up there that help
13 you when you're in a challenging situation, that you
14 may not be familiar with.
15 So, I would try to familiarize myself with
16 that, if we were -- like the .5 margin, that's a
17 question that's beyond what cargo macs would do for
18 you, and I would refer immediately to the ABS
19 procedure.
20 MR. MILLAR: Got you.
21 CAPT. HEARN: Thank you.
22 MR. MILLAR: Thanks very much, Captain.
23 CAPT. HEARN: Yes, sir.
24 MR. MILLAR: That's all my questions.
25 MR. KUCHARSKI: Last call on cargo macs.

1 (No audible response.)

2 MR. KUCHARSKI: Okay, moving onto management

3 and personnel type matters.

4 Jack, were you master on the Ponce class

5 vessels on the Puerto Rican run when the ships were

6 operated by Sea Star?

7 CAPT. HEARN: Yes, I was.

8 MR. KUCHARSKI: And were you were master on

9 the Ponce class vessels when the management was changed

10 to TOTE Services, Inc.?

11 CAPT. HEARN: Through the transition, yes.

12 MR. KUCHARSKI: Can you describe the general

13 differences between the two, how they were managed?

14 CAPT. HEARN: With the Sea Star before -- I

15 guess we were talking basically about how we started

16 using engineering services from the west coast, and the

17 TOTE operation out there.

18 Sea Star, before that, there was possibly

19 some interface with TOTE, but it was not management

20 interface that -- where they were direct to the ship.

21 The ships were managed and decisions on the

22 ships were managed and directed by operations in

23 Jacksonville, as far as engineering, shipyard, repair,

24 approval for supplies and voyage condition, all the

25 approvals, you know, basically for purchasing and that.

1 The personnel management was conducted by --
2 at that time, it was called Inter Ocean American
3 Shipping, which was the OIT company or IOM. Then they
4 transitioned out to TOTE Services, and they're in
5 Jacksonville also. So, there was quite a bit of a
6 management restructuring.
7 The port engineering, there were, at one
8 time, four port engineers to operate the three ships in
9 Jacksonville, and Lee Peterson was one of them. He was
10 listing in, and there was Jim Coleman, Skip McCray and
11 Bill. I can't remember his last name off hand.
12 Then there was -- purchasing was done right
13 there, locally, also. The purchasing officer would
14 work with the engineers directly, to get supplies for
15 the ship, and operations was also managed there.
16 For cargo operations, voyage operations and
17 voyage requirements, we chartered. It was still
18 operated from Jacksonville. We would communicate with
19 them on voyage operations, and when we were on -- when
20 I was on the Puerto Rico run, voyage cargo work and
21 operations were conducted right there in Jacksonville.
22 So, if there was any question with anything,
23 regulatory or requirements for crew personnel
24 management, it was usually filtered through them, and
25 then over to TSI up in New Jersey, but the west coast

1 wasn't involved.

2 MR. KUCHARSKI: And then that changed when

3 TOTE Services started --

4 CAPT. HEARN: Well --

5 MR. KUCHARSKI: -- managing the vessels?

6 CAPT. HEARN: Yes, Jim Coleman and Skip

7 McCray were let go, and engineering was managed

8 somewhat by Lee, right there locally, and then he was

9 supported by the west coast operation of engineers.

10 TOTE Services in New Jersey continued to do

11 what -- all of the services that they did, which was

12 the ISM, system management for personnel, SQE and all

13 the certifications for the -- the ISO certifications

14 that had come down the line.

15 But approvals were done on the west coast.

16 In fact, purchasing moved out to the west coast, so

17 that they -- they managed everything from out there,

18 that staff.

19 MR. KUCHARSKI: So, when it was TOTE

20 Services managed the vessels -- well, let me back up.

21 When Inter Ocean management managed the

22 vessels, who did you go to with nautical issues?

23 CAPT. HEARN: If I had -- I mean, it was

24 sometimes a team project on some of these issues, and

25 depending on the voyage with the Sea Star ships.

1 When I was -- because I also took the ship
2 on charter, but if it was a marine operations, it would
3 -- normally, I would immediately to marine operations
4 Sea Star, and I wouldn't -- because they were the
5 owners basically of the ship, and they also managed the
6 operation of the ship for the voyage and the cargo.
7 So, it would affect -- that cargo operation
8 and the mission of the ship would -- I would inform
9 them first.
10 If it was something questionable, like we --
11 we would -- you know, we talked about weather routing
12 or radar and things like that, and it was -- it was
13 part of the ISM system also. There had to be a report
14 on it. We had to write up in the safety meetings, then
15 the information would be informed.
16 If it was a Coast Guard reportable issue,
17 TSI would be informed also. So, I would talk to both
18 companies or I would copy them both on an email and
19 correspond and so, that they were both immediately
20 familiar with, you know, a decision or the procedures
21 to step forward from there.
22 MR. KUCHARSKI: So, if it was a navigation
23 issue or weather routing issue, who would you go to at
24 shore site?
25 CAPT. HEARN: Sea Star.

1 MR. KUCHARSKI: Okay.

2 CAPT. HEARN: Sea Star managed -- like, for
3 example, the better way to put it is, like Suez Canal
4 transit. Sea Star managed all of that, the agency
5 handling the fueling and all of that.

6 On the Puerto Rico run, they also fueled the
7 ship. They coordinated all of that on the run. If we
8 needed hospital -- medical issues or we had an
9 emergency for a crew member that needed to see
10 somebody, Sea Star was usually our better resource
11 because they had -- they operated the port at both ends
12 where the ship arrived, and they had staff there to
13 help you manage that.

14 So, if we had a -- an injury, an emergency,
15 a cargo issue, if I was concerned about anything
16 locally with the Coast Guard and navigation, I would
17 inform TSI, but I was ask Sea Star, who was local to
18 the port to -- you know, I would get them involved
19 also, and sometimes they would represent it.

20 It could have been something from a marine
21 inspection that the Coast Guard is coming, to trying to
22 think of something like they -- like, for example,
23 whale slow-downs, when we started doing that, they were
24 familiar with it, to talk to the Coast Guard because
25 they were locally involved with the port and the impact

on the operation that it was -- the Coast Guard was looking for, you know, information on that, they would talk to directly to Sea Star operations people.

MR. KUCHARSKI: And when -- I'm going to go back even further.

When you were out on the west coast, who did you interface with, with nautical type issues?

CAPT. HEARN: A lot of it was the same. Bob McGee, when he was there, Rich Griffith, and the port engineer would be the first person you would bring any issue up, and we had issues there too.

It could be shoal crossing times. We had weather conditions of course, much more frequently there. So, you would keep them informed and they would inform other parties, but was email evolved and got better, you could include everybody in this communication. So, people were better informed like that.

MR. KUCHARSKI: So, there was no -- was there any difference between who you reported to, or the reporting procedures at TOTE in Alaska, then to Inter Ocean and Sea Star and then, to TOTE Services? Were there any changes in there?

CAPT. HEARN: Not greatly, until we -- until the Sea Star went remote to Tacoma. That was a change,

1 because they normally had operated locally where they
2 had the vessel operations personnel right there in the
3 port, where the ship was docking every week, and when
4 they went to the west coast with it, then we did not
5 have operations personnel in port. They were -- more
6 of them were on the west coast.
7 It was a change there. Even when we were
8 running to Philadelphia, Sea Star opened an operations
9 office in Philadelphia locally, and people were working
10 there to manage cargo coming in and any cargo issues
11 for people, and then when they left, they shut down
12 that office.
13 But so, they kept people right in that port
14 that ran and coordinated all of that, and I think most
15 of that is still be conducted with Sea Star right
16 there, but the engineering side was always in that one
17 major port, like the home port of Jacksonville. A lot
18 of that got moved to the west coast, and the approvals
19 for purchasing got moved to the west coast. So, that's
20 the changed that happened.
21 MR. KUCHARSKI: Before I ask specific
22 questions about personnel, any questions on management?
23 Carrie?
24 MS. BELL: Carrie Bell, NTSB. Just a
25 question about when this transition took place. What

1 year or years -- what was the evolution of this change?
2 CAPT. HEARN: It didn't happen overnight.
3 Some of the first indications was that there was a
4 pretty large layoff of personnel in Sea Star in
5 Jacksonville, and I think that happened around -- it
6 started happening around 2009 or 2010.
7 MS. BELL: And when was the final
8 change-over?
9 CAPT. HEARN: Well, like I said, these
10 changes were coming over a year -- several years,
11 changing the company names from Inter Ocean American
12 Shipping to TOTE Services, and moving from New Jersey
13 to Jacksonville, operations moving from Jacksonville to
14 Tacoma.
15 They moved around quite a bit of -- you
16 know, who was going to handle what office, like
17 purchasing was done locally -- Inter Ocean had a
18 purchasing department. Sea Star had a purchasing
19 department. TOTE had a purchasing department.
20 But I know that Inter Ocean probably kept
21 their purchasing department because they're a separate
22 management company, but the Sea Star ships fell under
23 the umbrella of purchasing operations in Tacoma on the
24 west coast.
25 So, it's not just a -- you can't just point

1 to a simple change that I recall, and I'm sure it
2 continued to happen after I left, these evolutions and
3 the process of change in corporate structure and
4 management.
5 MS. BELL: Okay, and was there anything
6 specifically that, you know, you had, like this is who
7 you need to call for these kind of -- I mean, just in
8 general, did they give the employees a way to
9 understand who they were suppose to contact --
10 CAPT. HEARN: Yes.
11 MS. BELL: -- did they have a plan in place
12 for that?
13 CAPT. HEARN: Several. There was an
14 emergency management plan. There was also, you know,
15 an operations phone number, you know, for different --
16 you know, people that you call, a contact list, and you
17 would typically know them.
18 But the emergency management plan might go
19 beyond the scope of the corporate structure to the
20 Coast Guard and environmental protection people, to
21 help you with things.
22 So, there was -- you know, there was more to
23 it than that.
24 MS. BELL: Yes.
25 CAPT. HEARN: And then the chain of command

1 was also -- in the ISM procedures, the chain of command
2 and all of that was the -- the scope of it was detailed
3 there.
4 MS. BELL: Okay, thank you.
5 MR. KUCHARSKI: Questions on the phone?
6 MR. [redacted] Yes, [redacted] [redacted] here.
7 Captain Hearn, let me ask you a question.
8 Could you give me some of the names for the
9 people that were at Sea Star lines, Jacksonville, the
10 last names in the marine operations group?
11 CAPT. HEARN: Weisenborn, COLTONBACK
12 {phonetic} and Matthews and first name is Jamie
13 Ferguson. Those are the four --
14 MR. [redacted] And would --
15 CAPT. HEARN: They're with operations, not
16 engineering.
17 MR. [redacted] Okay, and at that time, would
18 Don Matthews have been called just for tradition sake,
19 a port Captain?
20 CAPT. HEARN: Yes.
21 MR. [redacted] Following on that question,
22 you know, previously you had talked about a fairly
23 robust dialogue that was maintained between a ship off
24 the Alaskan coast on the Alaskan run, and the TOTE
25 marine group to support the ship, related to weather

1 decisions, voyage decisions, whether you're receiving
2 to -- or whether you were modifying your course for
3 weather.
4 Did that kind of situation ever exist when
5 you were on the Puerto Rican run, you know, sailing out
6 of Jacksonville down to San Juan? Does something
7 similar like -- to that exist?
8 CAPT. HEARN: Yes, I had a good relationship
9 with Bill Weisenborn, and before him, Steve Tornello.
10 MR. [redacted] And would you -- while you
11 were sailing on the Puerto Rican run in the earlier
12 days, on the El Faro, would you say that you had a
13 dialogue with shore side management about your plans or
14 intentions for the voyages, mostly notably for voyages
15 related to, you know, adverse weather or the challenges
16 for adverse weather?
17 CAPT. HEARN: Yes, always. I would make a
18 point of talking to Bill Weisenborn especially. He was
19 a Kings Point graduate. He knew some things about what
20 we were doing. He had a lot of voyage experience that
21 I did not have, because he talked to the other
22 captains.
23 So, he would be a good -- probably the best
24 point of contact. Jamie Ferguson didn't have quite the
25 depth, but he was not bad to talk to, and he could at

1 least, you know, relay information.

2 Marshal was even less experienced, but also

3 very good to talk to and helpful.

4 MR. [redacted] Did at any time -- did they

5 provide you with technical support for adverse weather,

6 like feeding you whatever information they may have

7 from ashore, as far as the, you know, tracks of

8 hurricanes, courses or direction or any other -- I'll

9 call it third-party, because you're not getting it on

10 the ship.

11 Were they -- did they ever feed you

12 supporting weather information to help you make

13 decisions at sea and promote the safety of the vessel?

14 MR. KUCHARSKI: [redacted] this is Mike

15 Kucharski. I'm just going to say, we have a section on

16 weather next, okay, so.

17 MR. [redacted] Well --

18 MR. KUCHARSKI: So, you can finish up, but

19 it --

20 MR. [redacted] -- but what I'm looking for

21 here is how management supported the activities of the

22 ship.

23 MR. KUCHARSKI: Yes.

24 MR. [redacted] So, at this point at any --

25 and I'll end with that question.

1 Did they ever support your activities from
2 shore side, to try to help you out with other weather
3 information?
4 CAPT. HEARN: Yes, they did, mostly on the
5 overseas run.
6 MR. [redacted] Okay.
7 CAPT. HEARN: But they would do everything
8 they could.
9 MR. [redacted] And like Mike said, we'll talk
10 more about weather.
11 CAPT. HEARN: Okay.
12 MR. [redacted] Did you -- did you find there
13 was a -- over time, as these layoffs occurred, there
14 was an erosion of shore side support from management
15 for vessel operations?
16 CAPT. HEARN: Yes, well, people were missing
17 that had voyage experience and operations experience,
18 that we had been working with for a number of years.
19 Like Weisenborn and Coleman were -- they were with the
20 ships for a long time and knew the operations of the
21 port -- of the ships at both ends. That was
22 engineering and operations.
23 So, before then, there was a few other guys
24 that were in those capacities. But those guys were the
25 last two formal managers that I worked with closest

1 before that, so, and when they left, you didn't have
2 that experience at the office, because Lee was there
3 and Lee was relatively new, so he couldn't have gained
4 what they had learned that quickly.
5 But of course, Lee was excellent to work
6 with, but you can't -- you can't replace men like
7 Coleman and Weisenborn very easily.
8 MR. [redacted] Okay, throughout our talk
9 today you -- we've used a lot of specific terminology.
10 We talked about, you know, the fact that the ships and
11 the liner service. We talked about ROLO's, bilge
12 pumps, visual observation of buttons, incorrect
13 lashings and Captain Kucharski showed you, you know,
14 chains that were crossed underneath trailers and so
15 forth.
16 What I want to talk to you about for a few
17 moments is the critical role of the chief mate.
18 Can you speak to that? You did highlight
19 how important that was as an officer, but on the El
20 Faro in particular, the role of the chief mate in the
21 safety of the ship and the operation of the ship.
22 CAPT. HEARN: Yes, I can speak about that.
23 The chief mates that I worked closest with were Jim
24 McNAME {phonetic} and I'd have to look at my phone,
25 because I have him on speed-dial, another chief mate

1 from Texas that was experienced tanker mate, but he
2 transitioned very well over to Sea Star, because he was
3 a very good seaman.
4 They were hard workers, diligent, very
5 informed, able to put together maintenance, cargo,
6 calculations, crew operations. They worked close with
7 me on voyage planning. It was a lot of work on the
8 run. You were always very busy in port and then you
9 were busy at sea with maintenance and taking care of
10 things.
11 They were diligent with working closely with
12 the long shore men, and that's why I didn't have to get
13 involved. They were experienced men, and they were
14 good, and if they -- if we did have a problem, they
15 would come and get me and it would just be a remote or
16 isolated case and we would just work together on it and
17 get through it.
18 MR. [redacted] Okay, as we approach the
19 accident voyage time frame, there have been a number of
20 chief mates cycled aboard the El Faro.
21 There was two permanent chief mates and then
22 in the summer, one was demoted. I know the crewing of
23 the new ships came into play, and in a sense, it's my
24 personal observation that chief mates were being put
25 onboard the El Faro to determine their -- whether or

1 not they'd be potential marlin officers.

2 But there were like three new chief mates

3 cycling through there. What would you expect for a

4 chief mate, to go aboard the El Faro, as far as how

5 much training and oversight they would need, before

6 they could adequately assume the role as chief mate,

7 where you could rely on them as master? How much time?

8 CAPT. HEARN: Where I could rely -- where I

9 could rely on them as a good chief mate?

10 MR. [redacted] Yes, how much time would you

11 expect them to put in aboard, before you could count on

12 them, as you expected them to?

13 CAPT. HEARN: Over a year.

14 MR. [redacted] And what would that -- what

15 would that training encompass?

16 In other words, would you have to be

17 directly engaged with them as master, like help them

18 with cargo macs and stability and loading and walk the

19 deck with them to show them lashings?

20 What would be your plan to bring them up to

21 speed, so that you could rely on them as chief mates?

22 CAPT. HEARN: Well, I've worked with brand

23 new chief mates many times and -- or people that were

24 experienced chief mates that I didn't know, and a lot

25 of this is the same, it just can become a little more

1 rapid when they're experienced.

2 But you need to know -- you need to know

3 them and their values and what's -- you know, where

4 their -- how they're managing operations out there,

5 under your supervision, but they're still doing things

6 as a senior officer and department head, including

7 managing personnel.

8 It depends on the voyage and the voyage plan

9 and what's going on with the mission for the ship, but

10 on that Puerto Rico run, the number one project that

11 we're trying to manage is moving cargo.

12 But right next to that, and equally

13 important, is the safety of the ship and crew. So, you

14 want to know what has -- if he has limitations and

15 knowledge about experience -- about the safety

16 procedures processes, whether it's fire fighting to

17 medical emergency, to communications. If they've been

18 a 2nd mate, then they should be familiar with a lot of

19 the -- a lot of that, because they've worked with it a

20 little closely with us.

21 So, you're working with someone that has

22 known information, but if they don't, and I've had that

23 also, then you have to get them up to speed.

24 Experienced guys get up to speed very quickly. If

25 they're inexperienced, it's going to take them a year

1 or more.

2 MR. [redacted] And how about too, for someone

3 that's coming aboard the Ponce class ship for the first

4 time, the El Faro, to come up to speed with

5 peculiarities of the vessel itself?

6 We talked about, you know, buttons and

7 D-rings and water-tight doors and scuttles. How long

8 would it be until you, as master, would have been

9 comfortable with them in performance of their duties?

10 CAPT. HEARN: Some of that depends on the

11 individual and their personality, and willingness to

12 accept, you know, working with someone else.

13 Some guys may seem to be good, but they're

14 not, and it takes time to get to know that person, and

15 unfortunately I've also had that.

16 But for the most part, if they're candid and

17 honest with you, you'll see the limitations or you'll

18 see something that might be a weakness. You can work on

19 that very quickly, or I can augment it with other

20 officers, to help them and take pressure off that

21 individual, which I've done, even recently, and I step

22 up myself.

23 Like I said, you know, if I need to do

24 something with cargo work or I'll stand watch for them,

25 so they can spend more time on deck or walk the deck

1 with them, sweep the deck, whatever needs to be done,
2 you know, then I manage my time around it.
3 It depends on the individual and how hard
4 they want to work to get up to speed. It's -- you
5 can't just -- you're not going to be able to pin me on
6 that, because people are different all over.
7 MR. [redacted] Yes, and I'm not trying to,
8 but I'm trying to look at the critical role of the
9 chief mate, and another thing I'm looking at it,
10 they're running the calculations for you, for
11 stability, and they're going to make some kind of
12 report to you, that you're going to be comfortable
13 with, that the ship is ready to go to sea. How would
14 you validate that?
15 CAPT. HEARN: Well, it may take time. If
16 you're -- if you have a guy that's not giving you
17 information, and I've had that experience unfortunately
18 also, with a chief mate. If they're not giving it to
19 you, then you've got to challenge them on that, and it
20 takes time to find out what they -- if they're being
21 honest, if they even know, it may be a personal
22 limitation of their own knowledge and experience, and
23 unfortunately, as captain, you've got a lot of other
24 work to do, and the routine of operating it -- it may
25 take you quite a while to find some either isolated or

a couple of glaring problems. It might not be apparent.

If you're getting paperwork, if you're getting reports, if everything seems to be in good order, and then you find out that they're not double-checking tanks spaces and they're not double-checking tonnages and weights, or they're taking short cuts, you won't know it.

So, hopefully, the character of the individual that has been promoted to chief mate has proven himself and is reliable, but you could have guys not do the right thing, and it will take time. You can't do both jobs. It's too much work for a chief mate, let alone a captain, to be the chief mate.

MR. [redacted] Right. So, a new chief mate aboard, would there be some kind of mentoring program where there is an expected -- you know, the off-going chief mate to stay aboard, to train, to a certain level? Would that be expected?

CAPT. HEARN: It may be, if the chief mate coming onboard has been with the ship for some time. He may be ready to step right across, because he's been there with the chief mate.

If he's never walked on the ship before, it would be very difficult for a person to walk onboard,

not know the ship, not know the computers, the cargo system, the company management system, the safety management system, and have a -- you will not have a seamless transition, and depending on how hard he works and what the challenges are that he faces, you may or may not have a safe condition there, but it's -- it's what you got.

MR. [redacted] Does the chief mate have any role to play with making sure the reapers are hooked up and the temperatures meet the manifest requirements and things like that, or is it purely stability?

CAPT. HEARN: Chief mates really is involved with everything. They will help with the reapers, but there is an electrician on there. The chief engineer has responsibility for the temperatures and the cargo.

But the chief mate will help them. He is involved with all the cargo operations, all the maintenance operations, all the safety management on the ship, all the deck personnel and the maintenance of the deck.

So, it's quite a bit, plus he stands as deck watch on the bridge. So, there is -- they're busy, and they keep records, quite a few records actually.

I think I said, some of the records we looked over today, I wasn't sure if they kept them or

1 not, because if I didn't have to sign it, they kept
2 records that I was not aware of sometimes.
3 MR. [redacted] Is there any mechanism, during
4 your time aboard, that would -- you would verify that
5 the chief mate that's been assigned to the vessel, you
6 know, a new chief mate, that you're not familiar with,
7 is component to perform the duties and functions for
8 the particular vessel that, that chief mate is on?
9 CAPT. HEARN: You know, you're going to size
10 up a guy you're working with every day. Is he too
11 tired? Is there something immediate that's a problem
12 or is it something that he just doesn't know?
13 So, it's -- not to make these complicated
14 answers, but the -- it's a broad scope of an issue,
15 when you talk about, you know, a little bit of
16 hypothetical with a ship and a person that you don't
17 know.
18 MR. [redacted] Right. So, how does TOTE,
19 which owns the vessel, or TSI that crews the vessel,
20 know that, you know, that that person is competent when
21 the person -- when the ship leaves the dock on a
22 particular voyage?
23 CAPT. HEARN: That is -- that's TOTE's
24 question, isn't it?
25 MR. [redacted] Well, I'm just -- okay, if

it's TOTE's question, I'll ask them. Thank you very much, Captain.

CAPT. HEARN: Yes, because I don't want to speak for a company that I haven't work for, for two years, with you know, how they do that. That's -- I think that it would be fair to say that they -- they would answer that question.

MR. [redacted] Thank you very much.

CAPT. HEARN: Yes, sir.

MS. BELL: This is Carrie Bell. I have a follow up to what [redacted] just said, and maybe ask the question in a different way.

How would you give the company feedback on the --

CAPT. HEARN: On the person --

MS. BELL: -- the chief mate?

CAPT. HEARN: There was an evaluation process that the ships filled out, and you would go over with the individual, and there could always be informal and formal correspondence and discussion about people.

That's commonplace, to talk about people. If there is a problem, if they're doing good, if they're doing bad, if there is an issue, who is responsible, if it someone that did a really good job

1 and you want them to get credit for it, or something
2 that, you know, had a mistake and we have to deal with
3 it. You know, where that responsibility and what we're
4 doing to come to a solution.
5 So, I would engage the company in all of
6 those conversations. I didn't like -- I don't think it
7 should be kept from them. So, they would talk to you,
8 whatever process there was. There were several
9 processes for it.
10 MS. BELL: Do you -- so, if you had a --
11 someone that you weren't real comfortable with, going
12 on their -- out on their own or just to, you know, let
13 them do the job without your -- as much supervision, if
14 you had a concern, would that be something that you'd
15 talk with --
16 I mean, you fill out the evaluation form,
17 but do you then go and talk to the company about issues
18 you might have with them?
19 CAPT. HEARN: Yes.
20 MS. BELL: And is that usually something
21 that -- would this company have received that well and
22 did they respond?
23 CAPT. HEARN: Not always. I mean, I've --
24 like an example.
25 I had a steward that I had to fire for

1 certain conditions, and a company officer as involved
2 and witnesses it, and then a senior manager put the
3 person back on the ship, and they -- I had to fire them
4 again for the same -- pretty serious violations.
5 But I mean, you don't always get supported,
6 depending on, you know, the contract and their
7 perspective of it. So, it was -- it was not up to me.
8 It was up to the company, to manage that.
9 MS. BELL: So, can you give an example of a
10 violation, with serious --
11 CAPT. HEARN: Well, that person was the
12 steward and there was rotting food in the reaper space,
13 so bad that it was turning to liquid and mold, and open
14 containers of food in with the same -- in the same
15 space with mold and rot -- rotten vegetables and
16 vegetation.
17 When I -- and I -- I had been warning him
18 and trying to coach him and improve him. So, he went
19 through the entire process step by step, and the
20 company was aware of it, and then finally, it was more
21 problems. He just didn't do what he was told.
22 I had approval to terminate employment. We
23 fired him. It went to the union process, to try to
24 resolve it, and the company put him back on the ship,
25 in the same capacity, working with me on the same

capacity.

Very quickly, the same problems came back up, how he managed food, and because we were coming into home port, Jacksonville, I could bring the company officer down onboard, and the second time, he was fired for the same reasons.

I mean, you have to take pictures and do all these things to prove it, but it used to be that the word of a couple officers was good enough, you know, to validate it, but they wanted more proof.

So, we got more proof and we went forward with it.

So, there is -- you can feel supported and not supported on that, depending on what the senior officer said, but it creates a difficult atmosphere on the ship, when you're trying to correct these things, you're trying to -- and then they step up a level of expectation that didn't exist previously, and these are constantly being added to everything in the world.

MS. BELL: Okay.

CAPT. HEARN: So, it's not isolated to a ship.

MS. BELL: Okay, thank you.

CAPT. HEARN: Yes, ma'am.

MS. BELL: Are we going to talk about the

evaluation?

MR. KUCHARSKI: Yes.

MS. BELL: Can I go ahead and go that route?

MR. KUCHARSKI: Sure, sure. We're in management.

MS. BELL: Okay, so, who did you report to shore side?

CAPT. HEARN: It depended on the issue.

MS. BELL: Okay, so, who would do your evaluations, your performance evaluations?

CAPT. HEARN: The performance evaluation -- last performance evaluation I saw for myself was done by Lee Peterson.

MS. BELL: Okay.

CAPT. HEARN: And Jim Coleman.

MS. BELL: And so, do you remember when that was, what year that was?

CAPT. HEARN: I think it was possibly 2012.

MS. BELL: And how frequently did those evaluations take place?

CAPT. HEARN: Be quite honest, that was one of the few I ever saw for a captain. I don't know if I saw one before that.

When I was chief mate, I saw a few, but so, the company was doing them, but they started doing them

1 again for a brief period, that I never -- I had never
2 seen one.
3 MS. BELL: Was it -- did it seem to be
4 dependent on who was in management in that position to
5 --
6 CAPT. HEARN: Well, it --
7 MS. BELL: -- enforce that rule?
8 CAPT. HEARN: I didn't even know if they had
9 -- they were doing evaluations on senior officers. I
10 didn't see it. So, there may have been another one or
11 two before that.
12 I did know that we did get audited on the
13 ship for the quality management program, and so, that
14 was part of your evaluation, how you were doing with
15 that, but it wasn't a personal evaluation.
16 MS. BELL: It was not?
17 CAPT. HEARN: No.
18 MS. BELL: It was just --
19 CAPT. HEARN: It was a ship's evaluation of
20 management and your scope of the management, your
21 entire safety management program.
22 MS. BELL: That was the only -- just so I'm
23 sure I understand this.
24 CAPT. HEARN: Yes.
25 MS. BELL: That was the only evaluation you

had or there was one performance evaluation?

CAPT. HEARN: I had one performance evaluation that I remember.

MS. BELL: Okay.

CAPT. HEARN: And then -- but there were audits on the ship and -- but performance was everything, and a lot of that would fall to the captain, how he was managing. But it wasn't a personal one-on-one, how I'm interfacing with anything. That other one was -- was all about just me.

MS. BELL: And that was 2012, you said?

CAPT. HEARN: Two-thousand-eleven or 2012 is all I can -- I haven't -- I saw one and I can't remember the year it happened.

MS. BELL: So, were you provided feedback then on that evaluation?

CAPT. HEARN: It was all good, and there was no reason to talk to me, I guess, if it was all good.

MS. BELL: Okay.

CAPT. HEARN: So.

MS. BELL: And so, you provided -- you didn't -- you did performance evaluations on the chief mate?

CAPT. HEARN: Yes, the deck officers and that was it, basically.

1 MS. BELL: And how often would that occur?
2 CAPT. HEARN: Every voyage.
3 MS. BELL: Okay.
4 CAPT. HEARN: If you needed to. Many times,
5 if it was always routine, you might not do another one,
6 because it would be the same report and several of
7 those guys were very good guys. So, it would just be
8 piling up the same almost white noise.
9 MS. BELL: Okay.
10 CAPT. HEARN: So, you would look for -- I
11 would look for opportunities to say where they were
12 doing really good, so you could give that -- that
13 notice to the company and the credit to the individual.
14 There were -- if there was a downside, and
15 there sometimes was downsides to evaluations, then you
16 would sit down with them, and I had very -- they were
17 rare, especially for the officers.
18 MS. BELL: Okay.
19 CAPT. HEARN: So this -- the company
20 normally employed really good, good people, so, I had
21 very -- not to isolate a case where they might like,
22 there was one thing, didn't always go into an
23 evaluation because it was a mistake or something not
24 necessarily his employment record.
25 MS. BELL: Okay.

1 CAPT. HEARN: So, they went through
2 performance evaluations daily, when it came to, you
3 know, working with the captain, but when it came to
4 recording it, you might look for the opportunity to
5 record it, for the right light to be motivating, be
6 positive, and if there was something that was glaring,
7 it had to be documented because that was also part of
8 the process.
9 MS. BELL: Okay, so, would you say in the
10 transition, when the company was transitioning, that
11 management was more or less aware of what was actually
12 happening on the ship?
13 CAPT. HEARN: Well, when -- if you're
14 working closely with people like Weisenborn and
15 Coleman, and they're gone, then it's hard for the next
16 set of officers -- you know, the company to get to know
17 you very well.
18 Some of them that worked on the west coast
19 knew me, because I had been on the west coast also.
20 MS. BELL: Okay.
21 CAPT. HEARN: But you know, things had
22 changed and I was working in a different operation.
23 So, it was just a little bit more remote.
24 MS. BELL: And one other question, something
25 you brought up earlier.

1 We've heard this phrase a number of times,
2 talking about this change-over in managers and
3 employees, was that TOTE was going in a different
4 direction.
5 CAPT. HEARN: Yes.
6 MS. BELL: How do you interpret that?
7 CAPT. HEARN: You know, that's another --
8 when there was -- there was talk about personnel issues
9 at the senior level, that they were going in a -- in a
10 different direction, and like when they let go of
11 everybody in Jacksonville, and that was -- you know,
12 they don't have to explain anything to me. So, I don't
13 -- I can't -- I can't speak for that.
14 MS. BELL: Okay, thank you.
15 MR. KUCHARSKI: Around the room, management
16 questions?
17 CAPT. NEUBAUER: Just one question, sir.
18 Jason Neubauer, Coast Guard.
19 For operations issues towards the end of
20 your time on the El Morro, 2012 time frame or so, did
21 you have to go to the west coast directly for those or
22 was there an operational manager in Jacksonville that
23 you would go to?
24 CAPT. HEARN: There was still an operational
25 manager in Jacksonville when the El Faro was laid up

1 for final time, with me, in Baltimore.
2 But the port engineers were starting to come
3 and work with us, for example port engineer from the
4 west coast came to Baltimore when we laid up the El
5 Faro.
6 CAPT. NEUBAUER: Okay, and towards -- when
7 you were on the El Morro at the end, was it -- would
8 you say the port engineer was filling the operational
9 role? Is that --
10 CAPT. HEARN: As much as he could, or Don
11 Matthews, because it had cut down from quite a few
12 people, purchasing, several engineers and several
13 operations personnel, to just a few or a handful of
14 people.
15 So, it -- it changed, but you could
16 interface with them, and what their role was, and what
17 their -- the expectation was from them and what you --
18 you had to go to other levels.
19 So, Harry Roger was stepping in more
20 frequently, and then things were going to the west
21 coast.
22 CAPT. NEUBAUER: Was it your sense that the
23 people in Jacksonville were overwhelmed, like Don
24 Matthews?
25 CAPT. HEARN: They were busy. They were

1 busy. When I stopped home, I was very courteous to
2 their time, but I can't say that they would ignore me,
3 but I know that they were busy -- they were working
4 hard and they were busy.
5 CAPT. NEUBAUER: Thank you.
6 MR. KUCHARSKI: Jon?
7 MR. FURUKAWA: Jon Furukawa, NTSB. For
8 management, how much commercial pressure did you have
9 to leave, you know, load and leave?
10 CAPT. HEARN: Commercial pressure? I think
11 that that's a routine pressure for a captain, to make a
12 voyage, and it's -- it's part of the expectation.
13 You know, it's -- like I -- for example, I
14 did military charters also, and there is no pressure
15 from there, if there is other mitigating circumstances,
16 and it could be almost anything with them, from
17 weather, to security.
18 They have charters and they have
19 expectations, so they're not going to let you off the
20 hook if you're not delivering the cargo within a
21 certain window and opportunity.
22 But they're a little bit more liberal,
23 compared to a commercial operation where you're on a
24 schedule to deliver that cargo on a date.
25 For example, the Alaska run, we fall off of

1 schedule often because of the difficulty with weather,
2 and we would try to make it up. There was times when
3 they would have to give up the opportunity or the try
4 because it was impossible, and they would rotate the
5 ships to the next schedule and give up that voyage.
6 But it's a routine pressure. It's not a
7 tremendous amount of pressure. It's an expectation.
8 MR. FURUKAWA: Okay, did safety ever
9 conflict with commercial schedules?
10 CAPT. HEARN: It may have, you know, if you
11 think about a -- a repair or a casualty of some type,
12 where we had to deal with safety instead of make the
13 voyage. It could have happened, yes, and probably did
14 happen.
15 MR. FURUKAWA: Okay, so, safety was over
16 commercial pressure?
17 CAPT. HEARN: Well, safety first, and if it
18 was -- safety would typically be regulatory also, and
19 you focus on that.
20 There were delays to do safety repairs. I
21 know of one in particular with the ABS. We had to
22 complete the ABS repairs before we could sail.
23 MR. FURUKAWA: Which repairs was it?
24 CAPT. HEARN: That was fire sprinkler system
25 with the ABS that they were looking at, and they wanted

1 it fixed before we sailed. So, you know, we had to fix
2 it.
3 MR. FURUKAWA: Okay.
4 CAPT. HEARN: But that happens quite often,
5 actually. It's not a regular thing, but if it happens,
6 it's got to be done, so we can sail the ship.
7 MR. FURUKAWA: Okay, let's see. Did your
8 employment over lap with the new -- the current
9 designated person ashore, John Lawrence?
10 CAPT. HEARN: No, I did not.
11 MR. FURUKAWA: Okay, does the person ashore
12 that you're talking about, was that Harry Rogers? Do
13 you know what happened to him?
14 CAPT. HEARN: Yes, he is president of
15 Citation Marine in New Jersey. It's a small ship
16 management company.
17 MR. FURUKAWA: Was he Jacksonville employee?
18 CAPT. HEARN: No, he was a New Jersey
19 employee.
20 MR. FURUKAWA: Okay, so, he moved on?
21 CAPT. HEARN: He moved on, yes.
22 MR. FURUKAWA: Okay, Cliff Hill, what was
23 his position?
24 CAPT. HEARN: I can't -- the exact title, I
25 can't recall. Some of the titles were changing. He

1 was a port engineer or the senior port engineer in
2 Tacoma for TOTE.
3 MR. FURUKAWA: Okay, and for management,
4 that's good. Thank you.
5 CAPT. HEARN: Yes, sir.
6 MR. KUCHARSKI: Jack, this is Mike
7 Kucharski. I'm sorry, Tom, did you -- did you -- did
8 you know any -- did you sail with any of the personnel,
9 the senior personnel that were lost on the El Faro?
10 CAPT. HEARN: Yes.
11 MR. KUCHARSKI: Chief engineer, first
12 engineer, chief mate, 2nd mate, 3rd mate, Bosin?
13 CAPT. HEARN: I sailed with -- well, I knew
14 Steve Shultz, Danny Randolph and Jeremy Reemer. I also
15 knew Jeff Mathias pretty well. I sailed several times
16 with the chief engineer Jeff, not Jeff. I forget his
17 name off hand, and [redacted] Griffin, I knew well. Halle,
18 I knew pretty well, the second engineer.
19 Several of the crew members, quite a few of
20 them, actually. I knew probably half of the whole
21 staff on the ship that was lost.
22 MR. KUCHARSKI: Did you actually sail with
23 Steven Shultz?
24 CAPT. HEARN: Yes.
25 MR. KUCHARSKI: How many times?

1 CAPT. HEARN: Just once.
2 MR. KUCHARSKI: Just once?
3 CAPT. HEARN: He was 2nd mate filling in, we
4 had a small medical emergency, and he stepped in for a
5 couple weeks.
6 MR. KUCHARSKI: Okay, so, you sailed with
7 him for a couple weeks, as he was sailing as 2nd mate?
8 CAPT. HEARN: Correct.
9 MR. KUCHARSKI: Okay, and the Bosin? Did
10 you sail with the Bosin?
11 CAPT. HEARN: I didn't remember him. I saw
12 his name. But I've sailed with hundreds of people and
13 sometimes, a few of them, I've sailed with, but I
14 didn't remember, in particular, and then you see them
15 and you talk about something, and it comes back,
16 because everybody is busy with their jobs and you don't
17 always get to know them on a personal level.
18 But those officers, I worked with every day,
19 and I knew them.
20 MR. KUCHARSKI: And Steven Shultz is 2nd
21 mate. Was he sailing as chief mate at the time, just
22 filling in as 2nd mate?
23 CAPT. HEARN: No, he was sailing as 2nd mate
24 regularly on the El Yunque.
25 MR. KUCHARSKI: I see.

1 CAPT. HEARN: He had been chief mate on the
2 Great Land or the Westward Venture, and some of the
3 charter work that was going on in the mid-east.
4 MR. KUCHARSKI: And he went from chief mate
5 on the Great Land to 2nd mate on the Puerto Rican run?
6 CAPT. HEARN: Yes.
7 MR. KUCHARSKI: Okay, I'm going to stop
8 there.
9 CAPT. HEARN: Rich PUSOTARO {phonetic}, I'm
10 sorry, is the chief engineer, Rich PUSOTARO.
11 MR. KUCHARSKI: Okay, you sailed with --
12 CAPT. HEARN: Several times, yes.
13 MR. KUCHARSKI: Okay, and any questions on
14 the competence of any of the people that you sailed
15 with?
16 CAPT. HEARN: Do I have any questions?
17 MR. KUCHARSKI: Yes, did you have any
18 questions on their competence?
19 CAPT. HEARN: Any concerns with them?
20 MR. KUCHARSKI: Yes.
21 CAPT. HEARN: You know, you go down the
22 line, everybody is different, you know, so you would
23 have to go down one person at a time, to discuss, you
24 know, their competence.
25 All of them had potential, and like

1 everybody, nobody is perfect. You know, we're all
2 looking to get better, including myself.
3 So, I -- they were all sober, reliable,
4 competent people that you could count on. They were
5 all hard working.
6 MR. KUCHARSKI: Okay. Yes, we're going to
7 take a pause here.
8 (Off the record.)
9 MR. KUCHARSKI: Okay, we're back on the
10 recorder. Took a short break. Questions around the
11 room on any of the personnel that Captain Hearn sailed
12 with, or that far?
13 MS. BELL: This is Carrie Bell, NTSB. I just
14 have a question about Captain Davidson.
15 You said that you -- he relieved you when
16 you left.
17 CAPT. HEARN: Yes.
18 MS. BELL: Did you work with him at all?
19 CAPT. HEARN: No, I did not.
20 MS. BELL: So, you can't speak to his
21 character or any of that?
22 CAPT. HEARN: No, ma'am.
23 MS. BELL: Okay, thank you.
24 CAPT. HEARN: No, just met him, that's it.
25 MR. KUCHARSKI: On the telephone, [redacted]

1 MR. [redacted] Yes, Captain. Not talking
2 about Chief Mate Shultz personally, but he was 2nd mate
3 for an extended period of time on the El Yunque, and he
4 transitioned -- he was one of the chief mates that
5 cycled through the El Faro towards the days leading up
6 to the accident voyage.
7 He had been onboard El Faro for 19 days. Is
8 that 19 days enough to come to grips with the specific,
9 you know, challenges of being chief mate on a ship?
10 I know he's a long time mariner. I've read
11 his personnel file, but I'm talking about coming from a
12 chief mate's job, 2nd mate's job on the El Yunque over
13 to the El Faro, in particular in a time of year where
14 there are hurricane season and the potential for
15 adverse weather. Is that 19 days enough to come up to
16 speed?
17 CAPT. HEARN: Yes, for a guy that's been
18 chief mate on that class of ship and he's been working
19 on the ship as a 2nd mate, he should be -- he should be
20 ready and aware of what's going on. I would expect him
21 to know everything.
22 MR. [redacted] Okay, talking about the
23 positions of chief engineers and chief mates.
24 If you get the word in some form of
25 communication from -- based on the time when you did

1 work for -- and were crew through TSI or IAS, how do
2 you know the capabilities of someone that's being
3 assigned to your ship in the capacity as chief mate or
4 chief engineer? How do you get that word?
5 CAPT. HEARN: You mean, I'm getting sent
6 someone that I've never met before?
7 MR. [redacted] Yes, they just say, "Here is a
8 guy's name," and you know, his introductory email, you
9 know, a brief -- he'll be joining on 'x' date. How do
10 you know what the capabilities of that individual is,
11 when that person reports aboard?
12 CAPT. HEARN: Well, you know, it's really
13 fair to give the person the opportunity to prove
14 themselves with you directly, instead of listening to
15 anyone else's report, because people get better and
16 people change. So, it's -- you don't know.
17 You have to take things as they come and
18 deal with it.
19 MR. [redacted] And then my final management
20 question. Based on your experience, within the
21 organizations that you work for, for the Ponce class
22 ships, who has management oversight for ship board
23 operations?
24 CAPT. HEARN: It depends on the operations
25 you're talking about. Engineering, purchasing, safety,

1 personnel.

2 MR. [redacted] Let's say, let's talk about

3 the -- who would have oversight of ship board

4 operations regarding the voyage operations that you've

5 described, whether it's cargo or the actual

6 operations, such as voyage planning and things like

7 that?

8 CAPT. HEARN: Well, the captain has voyage

9 planning, but it -- depending on the level of

10 complexity with that voyage, there is people involved

11 from throughout the organization that you may have to

12 bring into the discussion, because it's -- especially

13 as the -- as the company changed and those key people

14 weren't at the -- at the dock anymore.

15 So, you might feel it necessary to inform as

16 many people as possible if you had a concern about a

17 voyage problem or a voyage concern.

18 I don't know if that helps a lot, but when

19 people started moving to more remote locations, the

20 only thing you could do was report to several of them

21 in case they weren't available to take an email or

22 respond to you quickly. You didn't have a direct line.

23 You had several lines that were direct as possible.

24 MR. [redacted] But so, during your time, and

25 we're talking about the particular area of management

1 oversight. Were you free to depart the Port of
2 Jacksonville and choose any route you decided to go to,
3 to reach your destination of San Juan, without getting
4 some sort of passive of positive feedback from TOTE
5 management, if they concurred with your decision, or
6 was it purely your -- unilateral on your part?
7 CAPT. HEARN: My experience with the company
8 is that you always let them know what you're doing with
9 their ship, where you were going, and if you're going
10 to change from anything than the normal procedure, with
11 a voyage plan, with a route, with personnel, with fuel
12 management, with cargo, you would let the company know.
13 MR. [redacted] What were your expectations
14 once you let them know?
15 Let's say you turned out of Jacksonville and
16 you anticipated weather, and you decided to go down the
17 Straits of Florida at the beginning of your voyage,
18 just in case. What would you expect the company
19 management to do once you told them that?
20 CAPT. HEARN: I would expect them to agree.
21 MR. [redacted] Would you expect some type of
22 feedback, like either through a phone call on the SAT
23 phone or email, you know, "Roger that, got you. Keep
24 me informed."
25 CAPT. HEARN: Yes.

1 MR. [redacted] Something?

2 CAPT. HEARN: And if I didn't get something,
3 I would pick up a phone and start making phone calls.

4 MR. [redacted] Okay, and I know I'm delving
5 into the next area, but how often did you use that SAT
6 phone at sea to communicate for support from shore
7 side?

8 CAPT. HEARN: Every tour, probably. It
9 could be a repair, and that would be more common, an
10 engineering failure or a -- a type of -- I couldn't say
11 -- I say casualty, but it could be a piece of machinery
12 that broke and we need repairs, and we have to set it
13 up.

14 It could be a medical emergency, and of
15 course, it could be -- voyage planning and routing, it
16 is -- not to go too vague on this, but they would also
17 -- I know that the shore side, you got to a point of
18 contact, and it would typically be for example, Lee
19 Peterson would be the first guy I would reach out to,
20 because he was local to the ship. If he was available,
21 and then he would get other people involved, and I
22 would talk to them.

23 But if it was something that I think would
24 be regulatory, I might contact Harry Rogers and because
25 of the ISM process. So, it all depended on the nature

of it.

There was several people in the operation. You would go to the person that would be closest, and if you didn't get them, keep dialing, which has happened.

MR. [redacted] Okay, all right, thank you, sir. I don't want to belabor the management thing. But thank you very much, Captain.

CAPT. HEARN: Not at all.

MR. FURUKAWA: So, follow up on Keith's? When you told me --

MR. KUCHARSKI: Jon Furukawa.

MR. FURUKAWA: Jon Furukawa, NTSB. When you told -- told management -- when you told management that you're going to depart from the norm, would you ask for permission or just let them know that that's what you're doing?

CAPT. HEARN: And again, it's -- you know, there is -- that's a wide open door of hypothetical.

I would inform them. Sometimes it's -- you don't have a choice. Like, for example, you're stuck in really rough weather or the weather is getting worse and you have to go a different route than what you originally thought, or you're slowed down and you can't make better speed, or you have a machinery

1 casualty, so you can make better speed.
2 You have to inform that company that you
3 have a limitation to your voyage and things have
4 changed.
5 So, you would get on the phone and you would
6 send an email and you would keep them informed, because
7 you have to keep your employer, your boss, the ship
8 owner informed.
9 MR. FURUKAWA: The ship owner or management
10 would trust you as the mariner, or as the master --
11 CAPT. HEARN: Yes.
12 MR. FURUKAWA: -- you or any of the ship's
13 masters, that you're the expert and --
14 CAPT. HEARN: Again, depending on the issue,
15 because it could be that they -- like, for example, we
16 talked about a repair that I thought was very serious.
17 They didn't want to go to another level.
18 It ended up going to another level, but more
19 phone calls, more people involved. So, it's a large
20 management system and process involved here, and you
21 can't throw too many hypothetical situations to make it
22 -- to box in into how this works --
23 MR. FURUKAWA: Okay.
24 CAPT. HEARN: -- because there is too many
25 hypothetical's here. We're too vague.

1 MR. FURUKAWA: So, weather, if you told them
2 that you're going to take the Old Bahama Channel, you'd
3 expect them to --
4 CAPT. HEARN: I would expect them to approve
5 it.
6 MR. FURUKAWA: Okay.
7 MR. KUCHARSKI: I'm going to cover this in
8 some detail in the next section, weather. But that's
9 okay. Go ahead, beat up on it here. We're still going
10 to go into it.
11 MS. BELL: I just have one more question.
12 This is Carrie Bell.
13 So, for any reason you're delayed, what are
14 the types of ramifications on the other end, in terms
15 of anything? Cost of docking? I mean, I don't know,
16 docking fees? Overtime for crew?
17 CAPT. HEARN: There are ramifications, and
18 that's why you have to keep people informed, even if
19 you suspect -- back to precautions that you may lose
20 speed. That -- they need to know we're going to be --
21 this cargo is going to be late. This ship is going to
22 be late. There is another ship scheduled for that
23 berth.
24 There is so -- they're arranging different
25 things. Parts. People to come fix things. Fuel

1 deliveries. So, you have to inform the management team
2 and they will help you inform other people, so that
3 people that are expecting cargo, people that are
4 joining the ship, personnel, all these people get
5 involved. It is -- they have to be informed, and
6 that's part of your job as captain, because you're the
7 -- typically, the single point of contact,
8 traditionally, the single point of contact of any
9 information from the ship, and what's going on with
10 that ship. That's why you need to let them know things
11 and they -- they're informed. That's your -- the
12 captain spends a lot of time doing communications work
13 and so does the chief engineer today, because email is
14 through the ship.
15 MS. BELL: So, in terms of cost, is that a
16 big issue, if you're late, if you're delayed more than
17 say, two hours?
18 CAPT. HEARN: It depends. That may depend.
19 If you can make it up, it depends on the conditions in
20 the port. So, there is -- not to make all these
21 answers vague, but there is a lot of other things to
22 depend on, because it's a large system here of people
23 and port, cargo ships, employment contracts, depending
24 on the port, and what -- and how much cargo you have
25 onboard.

1 If you have a little bit of cargo, and you
2 only have a small window, you're lucky because you
3 can't get the cargo off in time, inside that shift, but
4 if you happen to have a big voyage and a lot of complex
5 cargo to move, and you're getting late on one cargo
6 shift, you're going to have extra people. You have to
7 coordinate and then bring them, and you have to --
8 they've got to figure out how to coordinate labor to
9 fix -- you know, to get the ship going, or if they're
10 doing repairs at the same time.
11 So, there is a lot of work to do, to prepare
12 because it's all done within the window to try to keep
13 the ship efficiently moving and moving cargo.
14 MS. BELL: Okay, thank you.
15 CAPT. HEARN: Yes, ma'am.
16 MR. KUCHARSKI: Okay, since we've talked
17 about weather and management, I'd like to -- this is
18 Mike Kucharski. I'd like to go back to something you
19 said about weather and talking to a gentlemen by the
20 name of Weisenborn.
21 CAPT. HEARN: Yes.
22 MR. KUCHARSKI: And you said you felt
23 comfortable getting input from him?
24 CAPT. HEARN: Yes.
25 MR. KUCHARSKI: Why is that?

1 CAPT. HEARN: Bill had been with Sea Star,
2 possibly from the very beginning with the operation.
3 So, he had -- was a young manager, relatively young,
4 moving up.
5 So, he knew the ships themselves, the
6 configuration. He knew -- and he was the guy that made
7 a lot of the decisions and that worked on the process
8 of the different cargo configuration on the El Faro,
9 compared to the El Yunque and the El Morro, because
10 they knew that they had more cargo and they needed
11 better flexibility.
12 Bill knew all those things intimately. He
13 also got involved with the voyage charter when the ship
14 was going overseas, which was a new step for that
15 company. They weren't operating one of their own ships
16 going on a charter, and because he had a maritime
17 background and had been through the academy system and
18 knew things about ships, it was easier to relate and
19 discuss with him, and we developed a good trust.
20 Harry Rogers is another good example of that
21 kind of a person you could talk to, get to that level,
22 even if it was an argument, which there could be
23 conflict about -- you know, or disappointment, but you
24 had to deal with it, but you could deal with it and
25 move on.

1 MR. KUCHARSKI: Okay, so, back -- I'm going
2 to back up about two hours ago, when I asked you about
3 nautical type issues.
4 CAPT. HEARN: Okay.
5 MR. KUCHARSKI: Okay, so, Weisenborn would
6 be somebody that you could have gone to with Sea Star
7 previously?
8 CAPT. HEARN: He would be the guy I would go
9 to previously.
10 MR. KUCHARSKI: Okay, and Harry Rogers would
11 be somebody at Inter Ocean when Sea Star was managing
12 the ships also?
13 CAPT. HEARN: Yes.
14 MR. KUCHARSKI: Who did you have as an
15 equivalent in the changeover to TSI?
16 CAPT. HEARN: Well, Harry Rogers was still
17 there. Bob Rogers wasn't bad, although he was
18 personnel. Most of the -- most of the TSI managers
19 that I worked with, and Lee Peterson, were good. They
20 knew ships and ship operations.
21 So, if we had expectations or concerns, at
22 least we had someone to bounce this off with, because
23 sometimes it was find out more information, or deciding
24 -- like say, a repair pending, can we last this long?
25 Is it safe to do so? Is it regulatory? There is all

1 the issues you look at, to make and balance these -- it
2 can be complex decisions.
3 MR. KUCHARSKI: Okay, this is Mike
4 Kucharski. Let me bring it right into weather then.
5 CAPT. HEARN: Okay.
6 MR. KUCHARSKI: Okay, was there a process in
7 place to discuss pending heavy pending weather and
8 routing for the ship to avoid this weather, when it was
9 Sea Star and then bring it into when it changed over to
10 TOTE Services.
11 CAPT. HEARN: The master's responsibility is
12 very key here, to watch the ship and to plan for the
13 voyage. He has -- you know, certainly, immediate
14 responsibility for that ship, and to keep the company
15 informed.
16 I would -- if we -- and we did have voyages
17 where we went and we weather-routed down to the Old
18 Bahama Channel because we could see problems based on
19 every -- all the complexities of what that voyage might
20 be, repairs or something.
21 We would discuss it and make the decision of
22 which way to go. If it was -- so, that was always an
23 opportunity.
24 If Harry Rogers was available, because he is
25 the designated person, I would try to keep him informed

1 and I would give him a call, or send him an email or
2 copy him on the correspondence, so he was aware that
3 the ship was, you know, going out of the normal
4 operation of things and scope.
5 MR. KUCHARSKI: Was this captured in any
6 policy statement, the discussion, or you say 'we
7 discussed'.
8 CAPT. HEARN: I would have to look at the
9 book, the ISM book, because there is protocols and
10 expectations of management, that -- and what the
11 captain reports, and the scope of operations is all in
12 there. You don't take the ship out of a scope of
13 operation, and not report it. It's important to keep
14 the company informed, because things could change and
15 voyage conditions could change.
16 So, you would typically keep them informed,
17 somebody has to be informed of what that ship is doing.
18 MR. KUCHARSKI: Okay, and then when you said
19 'we discussed' and a decision --
20 CAPT. HEARN: Whoever was the managers that
21 I was -- that were available for that problem, if it
22 was weather and when Bill Weisenborn was there, I would
23 talk to him. If he wasn't available, I would usually
24 get to Marshal, to call him back.
25 When they left, Jamie Ferguson was involved.

1 I would talk to Jamie Ferguson about it. He was
2 another operations manager at Sea Star after -- after
3 they left.
4 MR. KUCHARSKI: They were all operations
5 managers?
6 CAPT. HEARN: All on the operations side.
7 If I could not get to them and I needed to get to Jim
8 Coleman or Skip McCray, I did.
9 MR. KUCHARSKI: Okay.
10 CAPT. HEARN: And I remember having
11 conversations with Skip McCray about weather, and he
12 said -- I remember him saying, "Why wouldn't you? You
13 got a four year old ship, why wouldn't you."
14 MR. KUCHARSKI: Okay, and when they left,
15 then who was it that you --
16 CAPT. HEARN: Lee Peterson would be my best
17 resource because Lee is a very good experienced
18 manager, but I know that towards the end, Lee was often
19 busy. So, it might mean that I would have to go to --
20 try to get a message to Cliff Hill or get a message to
21 Harry Rogers. You go to the next step of management,
22 wherever they are.
23 MR. KUCHARSKI: Okay.
24 CAPT. HEARN: And let them know.
25 MR. KUCHARSKI: Okay.

1 CAPT. HEARN: And then they would
2 disseminate or manage it from there, whatever problem
3 you had, I would ask for their response. Sometimes you
4 didn't get a response.
5 They're communicating or they're not
6 available. So, you try to -- you have to reach out --
7 it's email. You don't know, and you want to get a
8 response pretty quickly.
9 MR. KUCHARSKI: Okay.
10 CAPT. HEARN: That's post, you know, making
11 that -- taking that action. Before that, you're trying
12 to look ahead and keep people informed.
13 MR. KUCHARSKI: Okay, I'd like to visit
14 weather routes.
15 CAPT. HEARN: All right.
16 MR. KUCHARSKI: Okay, were there -- when you
17 were master on El Faro, were there pre-computed
18 weather routes to go from Jacksonville to San Juan?
19 CAPT. HEARN: There were one -- there was
20 one major or regular route to take, that was -- you
21 know, outside of (inaudible) Shoal down, off the --
22 offshore Bahamas and then straight -- direct -- the
23 most efficient route.
24 There was the -- we used to run the Port
25 Everglades. There was a route that went into Port

1 Everglades, and then there was the Old Bahama Channel
2 route, and you can only vary it -- that so much, those
3 direct routes. Some captains were -- their weigh point
4 might be further down one way, thinking they were
5 catching a current.
6 We were always looking for any kind of a
7 benefit, but they didn't really exist, and we discussed
8 that, looking for the best routes.
9 So, most of the time those ships went on the
10 same lines and we saw the sister ship on the same
11 route.
12 MR. KUCHARSKI: I'd like to just take out
13 Chart 124, which covers the North Atlantic Ocean
14 southwestern part, and it shows the Cape Hatteras
15 roughly down, through the north coast of South America.
16 CAPT. HEARN: Okay.
17 MR. KUCHARSKI: Okay, you mentioned that
18 when you come out of Jacksonville, that you come down.
19 There's only a limited number of ways that you can go.
20 CAPT. HEARN: Right.
21 MR. KUCHARSKI: Okay, could you -- could you
22 explain how this just limited -- limited -- could you
23 use the New Providence Channel? Could you come down
24 the Strait of Florida? Could you -- could you explain
25 that, why you mean -- why you think they're limited?

1 CAPT. HEARN: Well, for one thing, you've
2 got to get to Puerto Rico from Jacksonville, and there
3 is -- it's a big ocean out there, but you're not going
4 to go farther off your route, because it's -- you know,
5 it's not effective or efficient with fuel.
6 So, you don't go -- and the -- and rarely,
7 no one -- knowing that you're going to go the most
8 reasonable and direct route, it depends on what you're
9 -- if you have an obstacle --
10 MR. KUCHARSKI: Weather?
11 CAPT. HEARN: -- which would be weather.
12 MR. KUCHARSKI: Weather specifically.
13 CAPT. HEARN: It would be weather,
14 typically, otherwise there's no obstacle and it would
15 be a hurricane, and the hurricanes come from two
16 directions. They either come from down in here, up,
17 close to Florida, and you don't -- they're unreliable
18 systems, or they're coming from out here, and into the
19 -- outside of the Old Bahama Channel.
20 The best thing you can do, and we've all
21 talked about this, is you would try to put those
22 islands between you and a hurricane, because it's a
23 huge barrier of weather condition and sea state.
24 MR. KUCHARSKI: And you've actually taken
25 those -- putting the islands, what you're talking about

is putting the islands --

CAPT. HEARN: I've done --

MR. KUCHARSKI: -- in between --

CAPT. HEARN: I've done both ways, both routes for weather.

MR. KUCHARSKI: Both routes being?

CAPT. HEARN: I've gone through the Old Bahama Channel, up or down and I've gone outside, further offshore, which is the only thing you can do if you have weather -- if you had a storm -- down here, say off of Cuba, like Hurricane Sandy --

MR. KUCHARSKI: You're indicating the south -- coming up from the south --

CAPT. HEARN: Yes.

MR. KUCHARSKI: -- of Cuba?

CAPT. HEARN: Yes.

MR. KUCHARSKI: Okay.

CAPT. HEARN: And Sandy threatened Florida, and we were -- it wasn't really an option to go down through the Old Bahama Channel.

So, I went far -- far to the east until I -- you know, watching the weather reports that I was getting from Sandy, so that I could keep outside of the range of any influence of that storm, so that I could continue to make headway, because I've got a lot of

time with storms, and you keep voyage distance.

MR. KUCHARSKI: When you -- when you talk about voyage distance, did you have, in your own mind, any pre-determined distance -- an actual mileage?

CAPT. HEARN: It's more about sea state and weather conditions because that's how you can maneuver your ship.

So, you -- you want sea room around that weather condition. You're looking for less than force five. So, you've got to --

MR. KUCHARSKI: Less than force five?

CAPT. HEARN: Yes.

MR. KUCHARSKI: Okay.

CAPT. HEARN: I would say once you get close to force five, there is a good chance it might be higher than what they were predicting.

So, your -- once -- then you're in a gale or near gale conditions and that could start slowing you down, and changing things, and if you start slowing down, you can't escape a system as easily as you would like to, because it's all about having sea room and getting -- keeping safe space from that -- that condition -- that system, whether it's an Alaska or in Europe or here, you have to keep sea room from it, especially a tight system like that.

Alaska, you have storms that are 1,000 miles long, and there is no avoiding a front.

MR. KUCHARSKI: Okay, and how about -- how about sea state? You mentioned force five for a wind. You want to --

CAPT. HEARN: Same thing with the sea state, but if you have a swell around it and you see that swell, you're looking to keep it down, you know, ten feet or less, 12 feet, because then you start losing speed.

The ship, if it's heavily loaded, is already going to be hard to push, because she's heavily loaded. So, you start adding a big wall of water to it, every -- you know, 20 seconds, she's gonna slow down.

MR. KUCHARSKI: So, is it a concern that -- that force five wind and the -- and the sea state of about 10 to 12 foot --

CAPT. HEARN: Ten to 12 foot.

MR. KUCHARSKI: -- is it more concern, just the speed of the vessel or are you concerned about the wind effect? You have stability on the vessel?

CAPT. HEARN: It is -- the number one issue you're dealing with that will slow the ship is sea state.

MR. KUCHARSKI: Okay.

1 CAPT. HEARN: She could take a lot of wind.
2 It won't slow the ship down. But sea state slows a
3 ship down pretty quickly.
4 MR. KUCHARSKI: Okay.
5 CAPT. HEARN: So, you want to stay -- if I'm
6 looking at the weather maps, and the weather maps today
7 are incredibly good. You'll see that sea state and it
8 will be in a different color zone, so you can stay
9 outside of that, and you may cut close to that margin,
10 if you feel very comfortable with it, and if you start
11 to feel that it's -- you're watching it, you're
12 monitoring it hourly. You may even stay on the bridge
13 all -- the whole time, until you're clear of that
14 system.
15 But you're watching the barometer. You're
16 watching the wind changes. You're getting other weather
17 reports from other companies, you know, whoever --
18 wherever you can get it. It might be NOAA. It might
19 be -- if the company -- of the internet, if you can get
20 the company to mail it, and I've done that, where the
21 company has mailed me -- email, send me email pictures
22 of what they were getting, so you can make the most
23 informed decision you can, to avoid not just the storm,
24 but the influence of the storm.
25 MR. KUCHARSKI: Was that somebody at Sea

Star that you were getting --

CAPT. HEARN: Yes, Bill Weisenborn sent me information before.

MR. KUCHARSKI: Okay.

CAPT. HEARN: And Don Matthews had.

MR. KUCHARSKI: Okay, and you mentioned about you're watching the barometers and you're -- what -- what is the heaviest wind you've been on in all the TOTE vessels?

CAPT. HEARN: Over 100 knots.

MR. KUCHARSKI: Okay.

MR. KUCHARSKI: One-hundred-ten. I mean, (inaudible) break, you lose -- in Alaska, I've had over 100 knot winds.

MR. KUCHARSKI: And were you able at night, to tell the direction of the wind and the speed accurately of a 100 knot wind?

CAPT. HEARN: Fairly well. You -- a lot of times, what you do is -- if you're -- at night, and you had no other indication, you turn the radar scale down to about a half mile range, depending on the radar system, and you can see the sea state and the sea return on your radar screen, and that will give you a good indication of where to look and what -- where your strong seas are.

1 You start to squelch that down, or turn the
2 gain down, and the sea clutter up, you can actually
3 start to see the heavy swells.
4 So, you can see your sea state, because that
5 will be your largest sea return, and then as you -- as
6 you scale down, you can even see the waves and the
7 direction of -- the predominant wave, unless it's a
8 confused sea, like the one storm I described off of
9 Gibraltar, that had multiple swells.
10 MR. KUCHARSKI: Would you be able to look
11 out the window and be able to tell the --
12 CAPT. HEARN: Not in the dark. It's hard.
13 You think you have a feel for it, but you're better off
14 to use the radar, and I would -- I've used radar
15 hundreds of times for --
16 MR. KUCHARSKI: Did the El Faro --
17 CAPT. HEARN: -- for days.
18 MR. KUCHARSKI: Did the El Faro have an
19 anemometer, working anemometer on there while you were
20 on there?
21 CAPT. HEARN: Yes.
22 MR. KUCHARSKI: On this trip south, okay,
23 and taking a fairly close to normal route, where would
24 be your out's, going down --
25 CAPT. HEARN: The number one route out is

1 the hole in the wall.
2 MR. KUCHARSKI: Could you indicate that on
3 the chart that we're --
4 CAPT. HEARN: That is just the --
5 MR. KUCHARSKI: -- so everybody can see
6 that.
7 CAPT. HEARN: It's just the -- it's right,
8 here, Northeast Providence Channel.
9 MR. KUCHARSKI: Okay.
10 CAPT. HEARN: And I know that the ship -- I
11 think she foundered in this area here. But it -- when
12 you're watching that weather, this is a -- this is the
13 -- it's a good wide passage that's easy to navigate.
14 You go right into the Bahama Channel, this way.
15 These areas down here, there is -- there is
16 passages you can use, but they're a little bit more
17 difficult to -- we don't have as much voyage experience
18 using them, but this channel is marked on all the
19 routes and everybody knows it.
20 MR. KUCHARSKI: So, that decision --
21 CAPT. HEARN: So, I rough weather, you tend
22 to want to take a familiar route, because if you get
23 into a sea state or you have navigation problems, you
24 don't like to be in unfamiliar territory, so I would
25 opt out pretty quickly, you know, to get that -- to get

that --

MR. KUCHARSKI: So, opting out in that particular -- what you're talking about is taking New Providence Channel through Hole in the Wall?

CAPT. HEARN: Yes.

MR. KUCHARSKI: Okay.

CAPT. HEARN: That is -- and you know, don't forget this is quite a while. So, you're -- that is your first route, if you find yourself out here, rather than turn back that way, you can -- I think you can make it, get in there and turn in.

MR. KUCHARSKI: Okay, and further down, as you get down passed San Salvador and that area, coming through MAYAGUEZ {phonetic} Passage or Crooked Island --

CAPT. HEARN: You have -- here, you have the Great Bahama Bank, as a shelter, and you have other options to get out of there, through the Straits of Florida, if that storm comes into your area.

But if you're out here offshore, you've got a long distance to go, to get to a better sheltered area of a -- away from a hurricane system that's out in the ocean. You have less -- you know, to make -- you don't have too many places to go, and you have a big wall, Grand Bahama Bank to get around.

1 So, you have to run through that weather,
2 and like I said, the problem is, if you get any of the
3 influence of the storm, you can't make distance and
4 speed. So, you're running out of options, where you can
5 get to a better sheltered part of the ocean, especially
6 if you're not able to run away from it because of the
7 speed, if you're under the influence of the storm, like
8 they were, they were caught up there.
9 If you're in -- if you're in this area here,
10 I mean, you're talking hypothetical, but you can get
11 here. You have some shelter from these islands here.
12 You could -- you would run down in here and get -- and
13 get Cuba between you and those --
14 PARTICIPANT: Could you names those, what
15 you've just indicated for the record?
16 CAPT. HEARN: Well, if you get down below --
17 if you go from Puerto Rico and you head into the Old
18 Bahama Channel, or you're outside, you could run in, by
19 the Turks and Caicos or something like that, if you
20 think that there is a storm. That was an unusual storm
21 because it headed south, as opposed to what many
22 hurricanes do. They keep on going north.
23 But there is -- it's an unreliable system.
24 You always have to think it's an unreliable system no
25 matter what you think, until you know.

1 But you always -- you have all these
2 options, but you want to put -- you're better off to
3 put distance and land between you and sea state,
4 because you get better weather to protect your ship,
5 and you can make that voyage, because you really don't
6 have much running room here, unless you go further
7 offshore. That's your only other option, which is a
8 scary decision because you don't have help out there.
9 But you do have sea room, but you have to
10 have fuel, and no other limitations to your choices.
11 MR. KUCHARSKI: You would not feel trapped
12 going down the Old Bahama Channel, not having sea room
13 to maneuver?
14 CAPT. HEARN: I would, but if that's on the
15 other side of a hurricane, then I've got room, I've got
16 ports and I've got -- I can go up into the Gulf of
17 Mexico and there is a lot of sea room there.
18 MR. KUCHARSKI: Okay. I'm going to hold
19 there on weather routes. Carrie?
20 MS. BELL: I just have one question. You
21 mentioned the sea state and safe space.
22 CAPT. HEARN: Yes.
23 MS. BELL: So, when you say safe space,
24 what, to you is safe space --
25 CAPT. HEARN: Safe space --

1 MS. BELL: -- from a hurricane?

2 CAPT. HEARN: Well, you -- the real issue is
3 staying -- keeping space between you and the hurricane,
4 so the storm conditions or the weather conditions don't
5 impose on your voyage ability to make other decisions,
6 like turn around, which was another option we could
7 have discussed right there. Well, just go back up, if
8 you think it's coming at you.

9 So, there is things you can do, but you have
10 to have fuel. You have to have propulsion. You know,
11 and so, there is limitations that -- we're not talking
12 about specifically here, but there are limitations to
13 the decisions that you have to include whenever you
14 make these decisions, since we're talking about a wider
15 range of decisions.

16 MS. BELL: So, do you do any kind of
17 calculation or anything on how far you want to be from
18 that storm?

19 CAPT. HEARN: Yes, outside of that -- well,
20 because storms change in size and direction, you stay
21 outside of the scope of where that influence could be.

22 So, that is why you're monitoring those
23 weather reports and gathering as much information as
24 possible, through the entire process or management of
25 the -- of this ship, on that voyage plan around the

storm.

You want to stay away from the influence of the storm, so it does not slow you down. If it slows you down, then the ship can't make speed, and if the hurricane is closing in on you, you're trapped. I've heard guys described as being -- you're not going anywhere, and now, you got to deal with that, and you're stuck.

MS. BELL: Thanks.

CAPT. HEARN: You're welcome.

MR. KUCHARSKI: On the phone?

CDR [redacted] with the Coast Guard. The National Ocean Service recommends something called the MAR 123 Rule. Is that something that you use commonly or did you have other methods for avoiding storms?

CAPT. HEARN: Yes, I'm aware of it and I know that they use it, but I -- be quite honest, it's like I described, I stay out of the influence of the system. You can look at the -- those different sectors of what you're trying to manage around the storm, but it kind of works, if you don't have a lot of experience like I feel like I do, where you just stay very far away from that system, to keep all those other voyage factors in your favor, to keep the ship safe, and you

1 have -- you have what I would call voyage reliability,
2 to make your destination port.
3 That is your number one goal, not managing a
4 storm. Some of those rules go back to the days when
5 they didn't have all the satellite information that
6 could give you the almost exact center of the storm,
7 the movement of the storm, the sea state around the
8 storm.
9 We have a lot more information today, and
10 I've used it, that's available, and after those couple
11 hundred storms that I ran through in Alaska, we were
12 using those factors to make decisions before it was
13 available, you know, when the sea state was changing,
14 when the ship speed was changing, so we knew where we
15 were in position to the system.
16 We would draw it on the chart and make it up
17 ourselves. Now, you have it coming to you and also,
18 the forecast. So, it's -- it's a little easier, but if
19 you try -- if you try to use it to shave the edge to
20 close to the system or you're trying to rely on an old
21 rule that might work for you, you're taking a chance.
22 You better off to use all the newest technology and
23 information you can put together. That's my answer to
24 the 123 Rule.
25 CDR [redacted] Understand. Thank you.

1 CAPT. HEARN: Yes, sir.

2 MR. KUCHARSKI: On the phone?

3 MR. [redacted] Coast Guard.

4 Captain, we -- Mike Kucharski asked you a question

5 about -- and you -- about storm avoidance, and you had

6 talked about the use of the sea clutter and the radars

7 to determine swell direction and wave height.

8 But you also mentioned the anemometer and

9 the anemometer being blown off the ship. Up until the

10 point where you lose the anemometer, how valuable is

11 the anemometer of telling wind speed and wind direction

12 accurately in managing the ship within the weather

13 system?

14 CAPT. HEARN: It depends on the person using

15 it. Some guys rely on it probably more heavily than

16 they need to. Other guys don't. I don't tend to use

17 it very often, because they may be operating or you

18 think they're operating, but it's not reliable. You're

19 really better off to take your own observation, if you

20 can see it.

21 MR. [redacted] Okay, and you know, you

22 mentioned staying outside the force five wind fields.

23 How do you account for the fact that -- like

24 in this particular storm, Joaquin, it was poorly

25 predicted? How do you take into account prediction

1 errors in storm forecast, so that you can safety
2 navigate the ship?
3 CAPT. HEARN: Exactly. That's my point
4 about distance, that you leave sea room and influence
5 of the storm.
6 If you start to feel that the storm is
7 closer to you than you want it to be, and you have no
8 other indication, turn away from it. You just open up
9 space, because it's a hurricane. It's a storm center.
10 This is not a front, like you have in Alaska, where you
11 can't avoid that whole entire 1,000 mile system.
12 This is a hurricane that has a center and
13 it's going to have a direction. You may not know it.
14 That's why I say you have to stay out of the influence,
15 and that force five is a rough influence. You may go to
16 four, because you feel less secure. You may go to six,
17 because you have a more powerful ship, or you feel
18 comfortable with it. I would say five would be my
19 limit.
20 Then there is other factors. You know, are
21 my engineers good guys? Are they -- are the engines in
22 good shape? Do I have enough fuel to go further
23 offshore? You know, you may decide you have to do
24 something different.
25 But those are limiting factors to your

1 decision, but that's what you have to do, and so,
2 unreliable storms -- every hurricane is unreliable.
3 MR. [redacted] Within the -- within the
4 Alaskan trade, how frequently during -- while you were
5 involved in a weather event, would you be expected to
6 communicate ashore with your position, speed and so
7 forth?
8 CAPT. HEARN: Every six hours, especially
9 with -- once the communications got better by email, it
10 could be more frequent. But I would say every six
11 hours, and certainly, if you had a problem that changed
12 everything immediately, if you had damage or your -- or
13 your voyage plan changed, it would be as immediate as
14 possible.
15 MR. [redacted] And in the Puerto Rican trade,
16 would you say that making a report ashore as to your
17 position once every 24 hours at noon would be adequate?
18 CAPT. HEARN: No, I would -- the same rule
19 would apply for me. I would keep operations informed
20 equally, where the ship, where it was going, what my
21 ETA was, if my ETA changed, because they are planning
22 other operations around that for cargo work and people.
23 So, I keep the company updated.
24 MR. [redacted] Do you know if there was --
25 during your time, was there a more frequent reporting

interval?

What we are aware of is that there is a 12 o'clock noon position report. That is it, unless there is a significant course change.

Was there -- did you experience some other reporting requirement, either during hurricane situations or normal situations when you worked for TOTE?

CAPT. HEARN: Well, if it's a normal voyage, every 24 hours is a normal reporting period.

But like I said, if voyage conditions change, you should let them know immediately because it could change operations and procedures down the line, when the ship does arrive in port. I think that is kind of reasonable.

MR. [redacted] Thank you.

CAPT. HEARN: You're welcome, sir.

MR. KUCHARSKI: Jack, I need to jump in here. I need clarification. Excuse me.

It's dark out, and you're looking at a radar. How are you going to tell if that -- explain to us how you would tell that wind is backing or veering, looking at a radar and it's dark out at night, trying to pick up a shift in wind or a change in wind without having an anemometer. How would you do that?

1 CAPT. HEARN: For one thing, you keep
2 records, every hour, even every half hour, you're
3 logging the wind direction, speed, the barometric
4 pressure. So, you have other indicators there, and
5 that also -- that wind also indicates that the -- the
6 storm center location by (inaudible) law.
7 So, you have other ideas you're looking at.
8 The barometric pressure is a huge opportunity to
9 understand where you are in relation to that storm, and
10 especially if you don't have other indications like
11 weather reports that we have today, because you'll know
12 how deep that storm is and what your pressure is, and
13 you know how close you are to it, you know, what you
14 can measure.
15 MR. KUCHARSKI: But the wind direction,
16 that's my -- specifically, what I'd like to --
17 CAPT. HEARN: I would take --
18 MR. KUCHARSKI: -- zero in on.
19 CAPT. HEARN: On the radar, you would -- I
20 would take that -- I would take a bearing on the
21 greatest sea state or the approximate middle range of
22 that sea state, that I can pick up and record that,
23 with my estimate of the wind speed.
24 If you're slowing down, which is probably
25 happening, in the conditions we're talking about, the

1 ship's speed is not as much a factor in estimating it.
2 So, you can -- you may be two forces off, but you
3 should be pretty close.
4 It's harder to -- to identify wind speed
5 once you above hurricane force. It's just -- it's
6 screaming at you, and you just don't know if you're at
7 70 or 80, but it's easier to tell if you're from 50 to
8 60 or 40 to 50, you can tell.
9 So, some of it is just experience, being
10 around it and I would -- you walk outside, you do
11 whatever you can to try to get a feel for this, look at
12 the sea state, whatever you can, flip all the lights on
13 the deck of the ship, to look and see what you can see,
14 and you go by the weather reports.
15 If they're saying it's seven where you are,
16 it's probably seven, and that will influence your
17 determination.
18 So, there is all those factors. Some of it
19 is history, you know, if you had a southwesterly wind,
20 all the sudden, if you're looking at the radar and it's
21 northeast, well something is -- maybe you're making a
22 mental error. So, you have to look at it, because you
23 do get tired through a storm system. If it's lasting
24 more than 12 hours, you know, you're starting to burn
25 out. Cargo is starting to get loose. There is factors

1 involved.

2 So, not to complicate the answer, but you

3 can use those indicators and your history to determine

4 an approximate, and you'll be close.

5 MR. KUCHARSKI: Okay.

6 MR. ROTH-ROFFY: Tom Roth-Roffy.

7 MR. KUCHARSKI: Yes, sir.

8 MR. ROTH-ROFFY: NTSB. Just to -- not to

9 belabor the anemometer issue, but please just describe

10 the reasons for you reluctance to rely on that

11 instrument to determine a wind speed and direction.

12 CAPT. HEARN: Anemometers, the anemometers

13 that I have used had cups and sometimes, one cup would

14 be missing and you would get lessor value than it was

15 indicating.

16 I've also had the indicator -- the direction

17 indicator not work correctly, so that you're not

18 getting the exact -- you know, it's a relative reading

19 anyway. It's not a true reading of speed and

20 direction.

21 So, because you don't know if it's got exact

22 and you don't know if it's been damaged, you can't see

23 it, because if it's spinning, it's spinning too fast to

24 see.

25 You have to also rely on your observation.

1 You can't -- just don't -- you have to look out the
2 window. It's that simple. Just like if you're looking
3 at a radar and you see -- you don't see a target, but
4 you see lights ahead of you, you can't rely on the
5 radar to not have that vessel ahead of you. You have
6 to take action. It's the same kind of a theory that
7 you use all your senses and all your -- you know, I
8 would -- all your ability to make a decision. Every
9 one of them is critical, at all times.
10 You're on watch for a sound, sight and you
11 know, you're looking around, you're putting all this
12 information together. So, not that it's not important,
13 but it's not your sole indicator.
14 MR. ROTH-ROFFY: So, you would not normally
15 use the anemometer indications to assist your --
16 CAPT. HEARN: I would use everything.
17 MR. ROTH-ROFFY: Okay, thank you. That's
18 all I have.
19 MR. KUCHARSKI: Mike Kucharski. Do you know
20 if the El Faro, when you left there, had a cup type
21 anemometer for wind speed as opposed to a propeller
22 driven one?
23 CAPT. HEARN: I think it was a cup type.
24 That's what I remember on the ship.
25 MR. KUCHARSKI: Would your answer change to

1 reliance on the anemometer if it were a propeller
2 driven, as opposed to a cup type?
3 CAPT. HEARN: No, it would not change.
4 MR. KUCHARSKI: Have you had experience with
5 a propeller driven anemometer, the blades coming off on
6 them?
7 CAPT. HEARN: Yes. In fact, that one may
8 have had a propeller driven. I can't remember anymore.
9 Because I've had both many times, and they both have
10 the same -- I mean, they're out there really getting
11 beat up by the weather, and as it increases, it's --
12 you have to use all your opportunities for information.
13 You can't just rely on one thing.
14 MR. KUCHARSKI: When you were captain on the
15 El Faro, was there any program to check the bearings or
16 any of the working parts on the anemometer?
17 CAPT. HEARN: Any programs? We did. I
18 mean, you would check it against your visual
19 observation all the time, and we would do that
20 regularly. I would do it almost every day. You would
21 look at it and see if it was working right.
22 MR. KUCHARSKI: Do you know if there was any
23 planned maintenance performed on the anemometer on
24 there?
25 CAPT. HEARN: They normally only received

maintenance when they needed to be repaired or replaced because it was not a -- it's not a big item and they usually would wear themselves out, because it's -- they're not -- they're constantly being used and constantly feeling the weather. So, they would probably -- it's more economical to replace it. You can't get to them very easily. So, you -- I mean, you could say that we go up there and spray them with a little bit lube oil or something, but it's practical to say that no, you would not do any maintenance to it. You would just replace it.

MR. FURUKAWA: Jon Furukawa, NTSB. Jack, do you know if the El Faro had one or two anemometers? Do you remember?

CAPT. HEARN: I don't remember. I think it only had one.

MR. FURUKAWA: Okay, you said on one of the ships, that was over 100 knots, the anemometer broke.

CAPT. HEARN: Yes.

MR. FURUKAWA: Or you know, it flew off. Did you get that replaced?

CAPT. HEARN: Yes.

MR. FURUKAWA: Do you know how long it took to get it replaced?

CAPT. HEARN: No. It would depend. That

1 was on the Alaska run, and sometimes that was voyage
2 opportunity for daylight. It's up top. It's a loft,
3 and good weather, because it could be dangerous to work
4 up top like that.
5 MR. FURUKAWA: Okay, would it take three
6 months to replace it? Six months? A year?
7 CAPT. HEARN: No, shouldn't take that long.
8 MR. FURUKAWA: Okay. So, by a couple of
9 months?
10 CAPT. HEARN: It could take a couple of
11 months. The part should have to be shipped in. It
12 might go through the process of approval. It could be
13 a delay.
14 MR. FURUKAWA: So, if it was six months or a
15 year --
16 CAPT. HEARN: If it was six months, you
17 would start getting annoyed and say, "Hey, did you
18 forget about this?" You double check your records.
19 You make sure you ordered it correctly.
20 I don't think it should be six months
21 because the mates on watch rely on it more heavily.
22 They log the weather all the time. They're not as
23 experienced as -- as me, and some of the other mates,
24 but sometimes it was discussion about what was better
25 to use, especially if you have some older mates that

1 have good weather observation skills.

2 MR. FURUKAWA: Okay.

3 CAPT. HEARN: They would rely on their eyes

4 more frequently and forget that the anemometer was

5 there to use for weather observation.

6 MR. FURUKAWA: Okay, for avoidance, you said

7 stay out of the influence and for you, less than force

8 five was good.

9 If someone told you, I want to stay 60 miles

10 away, what -- you said you didn't want to use a mileage

11 when you were asked earlier.

12 CAPT. HEARN: Yes.

13 MR. FURUKAWA: Sixty miles, and pros and

14 cons of --

15 CAPT. HEARN: Well, we're talking about this

16 hurricane and that was -- there is other information

17 there that I do know, because everybody watched the

18 weather system.

19 It was a small system developing. So, 65

20 miles is not -- it's too close because it's a

21 developing system, and that is -- you have to take that

22 into account. You know, it's just growing.

23 You don't know how big it's going to grow,

24 but that influence goes out pretty far with a system

25 like that, and that's why your predictions are

1 important. So, 65 miles is very close to the center of
2 a storm.
3 MR. FURUKAWA: That is above the force five?
4 CAPT. HEARN: Yes. Well, again, you know,
5 it's going to be probably above a force five, depending
6 on what stage it was at when you're 65 miles away.
7 If it's 65 miles away stage one, and it just
8 turned to a stage one, it may be something manageable,
9 especially if you have the weather on your stern and
10 you're making good speed and you're getting out of
11 dodge.
12 But if you're fighting it and you're against
13 -- and you're in one of those bad sectors that we
14 talked about, you know, those roles, then you're in a
15 bad place.
16 But that storm also had another unreliable
17 factor. She headed south. She had stopped -- any time
18 a hurricane is stationary, it's unreliable. It can go,
19 and they do go in different directions.
20 So, you can look at the models. You can
21 watch all the reports. But when a system is
22 unreliable, and you -- because you're on a ship, you
23 can only go so fast also. You might be able to have
24 speed -- that ship would have speed roughly double the
25 speed of a hurricane system, but the hurricane is

1 growing. Its influence is increasing also.
2 So, you're going to get into the influence
3 of that system faster than you might have wanted to.
4 So, this -- that voyage plan that we've discussed has
5 to incorporate worse case scenarios in that plan, so
6 that you're looking ahead of what the possibilities are
7 there and what your options are to keep the ship in a
8 safe position around the storm.
9 MR. FURUKAWA: Thank you. That's all I have
10 for weather.
11 MR. KUCHARSKI: Just have some quick
12 questions. I'm sorry.
13 CAPT. NEUBAUER: I have one question on
14 routing.
15 MR. KUCHARSKI: Go ahead.
16 CAPT. NEUBAUER: Jason Neubauer. Coast
17 Guard. Captain, I have one professional opinion
18 question and if you don't feel comfortable just let me
19 know.
20 But I'm wondering, if you were sailing south
21 to the .5 margin and you had to -- and the situation
22 occurred that you had to divert or had to consider
23 diverting, like for instance through the Hole in the
24 Wall.
25 CAPT. HEARN: Yes.

1 CAPT. NEUBAUER: Would that margin play into
2 your decision?
3 CAPT. HEARN: Yes. Everything is a part of
4 your decision. I mean, tug boats are on that run.
5 Sail boats are on that run. There is other vessels
6 that operate out there all the time.
7 So, they would do the same things. We have
8 a ship that's a little faster, so you can maybe cut it
9 a little closer to get out of the way, but --
10 CAPT. NEUBAUER: And I mean, just because
11 you'd have to increase your voyage length, you may not
12 have the margin available to increase, is what I was
13 getting at.
14 CAPT. HEARN: Well, no, depending on the
15 circumstance, because we're talking hypothetical
16 sometimes of what your options are, there is no margin
17 around safety really, when you're getting too close to
18 something very dangerous.
19 CAPT. NEUBAUER: Can I rephrase the
20 question?
21 CAPT. HEARN: Yes, sir.
22 CAPT. NEUBAUER: Do you think that sailing
23 at the margin of .5 could limit your options
24 potentially for diversions?
25 CAPT. HEARN: No. If I felt that there was

other factors, because that would not be my only factor, like the direction of the storm or the possibilities of directions of that storm, because they will give you what the possibilities are with those.

That would only be one factor, the .5. If the -- the force five. That's just one of everything else you're looking at.

CAPT. NEUBAUER: Okay. So, just to clarify, you potentially could go even below the GM factor to avoid a storm?

CAPT. HEARN: Well, if you get into a situation, then you have other limitations dangerous to your voyage, like I'm going to burn more fuel and I have to get this ship to a place where I can correct that problem.

CAPT. NEUBAUER: Thank you.

CAPT. HEARN: So, you have to go to Miami, maybe.

CAPT. NEUBAUER: Yes, sir, okay.

CAPT. HEARN: You know?

CAPT. NEUBAUER: Right, to refuel.

CAPT. HEARN: Yes, to refuel or do something to change the ship's condition because you're not where you were.

CAPT. NEUBAUER: Okay, thank you.

1 CAPT. HEARN: This is a dynamic problem --
2 CAPT. NEUBAUER: Yes, sir.
3 CAPT. HEARN: -- for the captain.
4 MR. KUCHARSKI: Carrie?
5 MS. BELL: Carrie Bell. One question. We
6 talked earlier about Hurricane Sandy.
7 In that situation, do you have any knowledge
8 of whether management was monitoring your vessel while
9 you were transiting in that weather?
10 CAPT. HEARN: I could -- I kept them
11 informed. I discussed it with them. I know I
12 discussed it with Don Matthews before I left the dock.
13 You know, what the possible ETA's were or the range of
14 ETA, and what my voyage plan was, and I remember the
15 conversation.
16 Then of course, you're sending position
17 reports about your ETA, more frequently if you need to.
18 So, you send that into -- normally, it goes to marine
19 operations, which is a general email address, and they
20 may disseminate that information to other people that
21 have responsibilities or concerns, but it goes -- that
22 way you know that it's not -- it's going to several
23 people and not just one person, in case that one person
24 is not -- not paying attention for whatever -- for any
25 reason that could happen to them.

1 MS. BELL: Okay, but you don't know whether
2 they would actually monitor, physically monitor that
3 voyage?
4 CAPT. HEARN: Well, I know that they do
5 this, that they keep those position reports. They know
6 where the ship is and what the intended route it.
7 MS. BELL: Based on your reports, right?
8 CAPT. HEARN: Yes.
9 MS. BELL: Okay.
10 CAPT. HEARN: So, you have a responsibility
11 to report to them. What they do on their side of it, I
12 don't -- you know, that would be speaking for them,
13 and that's not only wrong back then, because I know how
14 it worked, but sometimes it was different people
15 involved, but today, I don't know what they do.
16 MS. BELL: Thank you.
17 MR. KUCHARSKI: Mike Kucharski. When you
18 did -- had these discussions or you -- about Sandy,
19 with Don Matthews or you had the discussions with Bill
20 Weisenberg.
21 CAPT. HEARN: Yes, Born.
22 MR. KUCHARSKI: Born?
23 CAPT. HEARN: Yes.
24 MR. KUCHARSKI: Were you just reporting to
25 them or were you looking for affirmation or dialogue

1 between the two of you, on what you were going to do?
2 CAPT. HEARN: Everything. I would look for
3 everything because still, any information you can get,
4 in case there is a limitation or I am stepping into
5 some area where there is issues going on that they are
6 familiar with that I'm not, you know, like expectations
7 of the voyage or whatever other possibilities might be,
8 like, well, let's just keep this ship here, probably
9 would not happen, but they might say it.
10 The other ship is in trouble. The other
11 ship has got problems. Let's just -- we're going to
12 change everything, because they're operating in a
13 company with other ships and other operations going on.
14 I'm only operating one ship.
15 So, you keep them informed, to make all
16 those operational decisions.
17 MR. KUCHARSKI: When you were on El Faro,
18 did you -- was the bon voyage weather system on there?
19 CAPT. HEARN: Yes.
20 MR. KUCHARSKI: Okay, and what was your
21 assessment of the bon voyage system?
22 CAPT. HEARN: I used it. We installed it
23 when I was on the ship for the mid east run. So, we
24 used it overseas. We had less reliable weather out
25 there, and it was another tool to help you, like we

1 discussed. You know, getting internet information.
2 That ship had -- they had television. So,
3 you could watch the weather channel.
4 MR. KUCHARSKI: Could you watch that out --
5 CAPT. HEARN: At sea.
6 MR. KUCHARSKI: -- at sea?
7 CAPT. HEARN: Yes, you could watch it off
8 the Bahamas.
9 MR. KUCHARSKI: Okay.
10 CAPT. HEARN: I did. I remember using it.
11 MR. KUCHARSKI: And that was received from
12 --
13 CAPT. HEARN: Satellite.
14 MR. KUCHARSKI: -- satellite?
15 CAPT. HEARN: Satellite TV.
16 MR. KUCHARSKI: Okay.
17 CAPT. HEARN: Unless it didn't work, you
18 know, later on, but it worked when I left the ship.
19 They had satellite TV.
20 MR. KUCHARSKI: That was on El Faro?
21 CAPT. HEARN: It was on El Faro.
22 MR. KUCHARSKI: How about El Morro? Did she
23 have --
24 CAPT. HEARN: Absolutely, yes.
25 MR. KUCHARSKI: -- satellite TV?

1 CAPT. HEARN: All three ships had it.
2 MR. KUCHARSKI: Okay. Did you ever have
3 discussions with TOTE or Sea Star management about a
4 weather routing service?
5 CAPT. HEARN: Yes, the bon voyage system, I
6 was involved in that, because I was having trouble in
7 the mid east, and getting reliable weather, and I was
8 dealing with a ship that was on a -- a schedule.
9 It's not only for schedule, but also voyage
10 reliability and maintenance of fuel. If you know
11 you're going to have weather ahead, you may increase
12 your speed, so you can deal with that weather and still
13 make your voyage ETA, but if you know you're going to
14 have good weather, you can keep your voyage speed down
15 and have better fuel economy for a long voyage.
16 So, these are factors, not just for safety,
17 but also for fuel economy, and after safety, that's the
18 number one rule, is trying to save fuel, because it's
19 very costly for a ship. So, captains look at that very
20 closely.
21 MR. KUCHARSKI: So, the weather routing was
22 -- the discussions were -- did you --
23 CAPT. HEARN: I was involved in the request
24 to get it and Bill Weisenborn researched it and bought
25 it.

1 MR. KUCHARSKI: For the middle east run?
2 CAPT. HEARN: Yes.
3 MR. KUCHARSKI: How about for the run to
4 Puerto Rico?
5 CAPT. HEARN: I believe they installed it on
6 all the ships. I can't remember now for sure. I used
7 the system on the El Faro and I used it, you know,
8 daily.
9 I think we did have it on the -- on the El
10 Morro also.
11 MR. KUCHARSKI: Weather routing service?
12 CAPT. HEARN: Well, the bon voyage weather
13 information system.
14 MR. KUCHARSKI: Okay, the Bon Voyage had a
15 -- had weather routing that could be obtained.
16 CAPT. HEARN: Right. We didn't -- I don't
17 think we used it. I was -- I was comfortable using the
18 weather information to make a voyage decision. So, I
19 didn't, you know, use their weather routing.
20 MR. KUCHARSKI: So, there was no discussion,
21 to your recollection, with anyone about obtaining the
22 weather routing service that Bon Voyage --
23 CAPT. HEARN: It was discussed with Bill
24 Weisenborn. I discussed it with him.
25 MR. KUCHARSKI: And the decision was made --

1 CAPT. HEARN: That it wasn't necessary.
2 That we could probably manage the voyage without it.
3 MR. KUCHARSKI: Was this also in light of
4 the hurricane season?
5 CAPT. HEARN: Well, we had so much
6 information available, at those -- in those days, that
7 we -- yes, even with the hurricane available.
8 MR. KUCHARSKI: Okay, voyage plans. Were
9 the voyage plans sent into the office?
10 CAPT. HEARN: The voyage plan was posted on
11 the ship. It wasn't sent into the office. It would be
12 sent to ANVER {phonetic}, and if it was a change in it,
13 it would be sent to ANVER.
14 But as far as the route and the plan went,
15 unless there was a change or deviation in the plan, no.
16 MR. KUCHARSKI: How about deck abstracts?
17 Were there deck abstracts sent to the company?
18 CAPT. HEARN: We had -- there were deck
19 abstracts kept for many years, and it was becoming so
20 conventional, the company had stopped using them
21 because they were getting information from other -- you
22 know, electronically from the ship.
23 So, we were maintaining them still, but not
24 mailing them in, because they were just putting them
25 into a file, and some of the captains might have

1 continued the practice, but it was one of those data --
2 pieces of data that had been falling out of service.
3 MR. KUCHARSKI: Weather related, weather
4 routing questions? Are there any further -- any on the
5 phone? On the telephone?
6 PARTICIPANT: I'm still here, Mike.
7 MR. KUCHARSKI: Okay. Okay, external
8 communications, Jack. Can you tell us the primary mode
9 of external communications on the vessel?
10 CAPT. HEARN: Email by satellite.
11 MR. KUCHARSKI: And can you tell us how that
12 system worked?
13 CAPT. HEARN: When I left the ship, it was a
14 -- an email system that was automated to update or you
15 could manually update.
16 So, if you wanted to get a message out right
17 away, you could manually force it to update and
18 receive.
19 MR. KUCHARSKI: If you didn't want to
20 manually force it, what would happen?
21 CAPT. HEARN: It would still cycle into
22 whatever the schedule was. It could be a six hour
23 period, a 24 hour period, a one hour period, where it
24 would transmit, download and update.
25 MR. KUCHARSKI: So, it would transmit --

1 CAPT. HEARN: And receive.
2 MR. KUCHARSKI: -- and receive
3 automatically?
4 CAPT. HEARN: Yes, any data transfer, it was
5 cued into the system.
6 MR. KUCHARSKI: Okay, and the weather came
7 -- information came in on the downloads?
8 CAPT. HEARN: Depending on how you wanted to
9 get it. I mean, we were also getting -- that ship had
10 NAVTEC's to get weather information. You may get
11 weather information from your NAVTEC's.
12 There was weather broadcasts. You would
13 also get weather broadcast on the SAT-C. So, the GMDSS
14 station was receiving weather and we had it set up for
15 that when I was there, and because that ship had access
16 to like the other systems, we would get weather there,
17 and I would -- there was a -- the National Weather
18 Service has a program where you can send in a request
19 for weather reports, and you type in the -- or at least
20 when I was there, you can type in a certain code of
21 what weather report you want, and when you send that
22 in, they will send you back an update of the map and
23 the area. I used that probably the most frequent.
24 MR. KUCHARSKI: So, you made the request to
25 the National Weather Service, for an --

1 CAPT. HEARN: Updated report.
2 MR. KUCHARSKI: -- updated report, and was
3 that sent in by email to them?
4 CAPT. HEARN: Yes, it was automated
5 response.
6 MR. KUCHARSKI: And how often was that
7 updated, if you wanted to?
8 CAPT. HEARN: Well, they had six hour, 24
9 hour, they had projections, Sea state, different
10 analysis, so you -- normally, you might only get a few
11 that you wanted, but if you were really concerned, you
12 would -- might be looking for a different range, and at
13 the time, I was pretty comfortable with all those.
14 I had a couple standards that I would look
15 for, and even during hurricane season, you would watch
16 the entire Atlantic for what's going on across the
17 ocean, because it's -- you know, change your thinking
18 in a month, because you -- you also have a ship to run
19 and maintenance to plan and if you start to run into an
20 unreliable hurricane system, you might be looking a
21 couple weeks ahead.
22 MR. KUCHARSKI: Okay, so, do you just --
23 just revisiting on what I -- what I believe you said.
24 You had the bon voyage weather, which came
25 in --

1 CAPT. HEARN: Yes.
2 MR. KUCHARSKI: -- and that came in
3 automatically.
4 CAPT. HEARN: Yes.
5 MR. KUCHARSKI: Unless your queried it or
6 changed that.
7 CAPT. HEARN: Yes, it did have a change
8 where you could -- ask for updates, also.
9 MR. KUCHARSKI: Okay, you had SAT-C --
10 CAPT. HEARN: SAT-C, yes.
11 MR. KUCHARSKI: -- you mentioned.
12 CAPT. HEARN: Yes.
13 MR. KUCHARSKI: How did that come in, that
14 weather?
15 CAPT. HEARN: That was an automated report
16 from the National Weather Service. High seas report.
17 MR. KUCHARSKI: Did it come by voice?
18 Telex?
19 CAPT. HEARN: Telex.
20 MR. KUCHARSKI: Telex?
21 CAPT. HEARN: It would be a printed report,
22 scrolled up.
23 MR. KUCHARSKI: Okay, and did that print out
24 somewhere on the bridge?
25 CAPT. HEARN: It printed on the bridge.

1 MR. KUCHARSKI: You had, you mentioned
2 NAVTEC's?
3 CAPT. HEARN: NAVTEC's printed on the
4 bridge.
5 MR. KUCHARSKI: Okay, and that comes in also
6 --
7 CAPT. HEARN: That's a VHF system. It's
8 part of the GMDSS system that provides navigation
9 warnings and updates, but it's more regional or local
10 report. So, it doesn't go long range.
11 MR. KUCHARSKI: Okay.
12 CAPT. HEARN: But you would get that local
13 regional report.
14 MR. KUCHARSKI: And while you were on there,
15 you were able to get NAVTEC's reports?
16 CAPT. HEARN: We got NAVTEC's reports, yes.
17 MR. KUCHARSKI: Did you have a fax machine
18 on there?
19 CAPT. HEARN: No. Fax changed to email.
20 So, the fax systems that we relied on very heavily for
21 many years had transitioned, through National Weather
22 Service, using email system.
23 So, they may be broadcasting fax, but we
24 didn't have that system on the ship.
25 MR. KUCHARSKI: And TV, you said you could

1 look at TV --

2 CAPT. HEARN: Correct.

3 MR. KUCHARSKI: -- and you could tune into

4 the weather channel if you wanted to.

5 CAPT. HEARN: I did tune into the weather

6 channel and the news reports.

7 MR. KUCHARSKI: Anywhere along the route

8 from --

9 CAPT. HEARN: No, we would lose --

10 MR. KUCHARSKI: -- Jacksonville to --

11 CAPT. HEARN: They had a line drawn on the

12 chart, roughly where you would lose it, below the

13 Bahamas. We would have it -- I didn't watch a lot of

14 TV, but we would have it about halfway on the route.

15 MR. KUCHARSKI: So, if it was a satellite

16 based TV, why would you lose it?

17 CAPT. HEARN: Because there was a different

18 package that you had to buy to get Carribean reception

19 and a different satellite, and we only paid for the one

20 up around Florida. So, we got cable TV on that part of

21 the voyage, but we didn't get cable TV on the lower

22 part. I should not say cable. Satellite TV. Excuse

23 me.

24 MR. KUCHARSKI: Okay.

25 CAPT. HEARN: And it was good. It was good

reception. It was throughout all the rooms. There were receivers to all the rooms. Most of the crew had it.

MR. KUCHARSKI: Weather questions? Communication equipment? Navigation related? Do we have any around the room?

MR. ROTH-ROFFY: Tom Roth-Roffy. Just a question about the weather routing service from BBS. You said you didn't think there was any value in it.

Do you feel that some masters might find value in that, perhaps if they were less versed or experienced or --

CAPT. HEARN: Yes, every piece of information that you -- if you don't have it, that you're confident with, and any information you can learn from is valuable.

When I was there, all the -- most of the captains were very experienced and they'd been around a lot time. So, he may have talked to them also about it.

I know that the captain I worked with on the El Faro going overseas was SILVIO CAVALLO {phonetic} at the time. He had been on that run for quite a few years also, and we were comfortable with the information we were getting. We didn't need the -- we

1 didn't feel that we needed the weather routing.
2 On the -- on that run to Puerto Rico, it's
3 even less options to weather route. So, if they talked
4 to the other captains, they probably made the same
5 decision if they didn't buy it.
6 But Bill, I know is very supportive. If we
7 felt -- like we got the weather system. If we wanted
8 something and it was going to show value or prove as
9 value, probably would have been there.
10 MR. ROTH-ROFFY: And how much did the
11 weather routing service cost to --
12 CAPT. HEARN: It was not much to receive
13 what we were receiving. To get the weather routing
14 package and other things, it was a pretty good jump.
15 So, I don't know if they -- if they bought
16 it or not.
17 MR. ROTH-ROFFY: About how much --
18 CAPT. HEARN: I don't know. I couldn't tell
19 you.
20 MR. ROTH-ROFFY: Okay. Thanks very much.
21 CAPT. HEARN: Yes, sir.
22 MR. KUCHARSKI: I'm going to jump just a
23 little bit. We're getting -- that's it, as far as the
24 questions that I have down.
25 Did you keep in touch with any El Faro or

1 Ponce crew after you left?
2 CAPT. HEARN: Yes.
3 MR. KUCHARSKI: Did you have any
4 conversations or observations regarding to what
5 happened to El Faro?
6 CAPT. HEARN: In the very -- when the news
7 came out, quite a few guys emailed or called. We
8 weren't even sure who was on the ship. But we all knew
9 quite a few guys.
10 So, there was a lot of conversation then and
11 information exchange because it was hard to -- for
12 days, we didn't know at all, what happened to the ship.
13 But it faded very quickly, within a week or
14 10 days of the ship's loss, that people stopped
15 talking, because the news was, by then, coming from the
16 Coast Guard and the NTSB, and the news channels and
17 there was updates. There was no reason for exchanges
18 among the guys, and I've been in touch with a few of
19 those guys since then, but we don't talk about the El
20 Faro.
21 MR. KUCHARSKI: Do you have any views or
22 theories on how the El Faro was lost?
23 CAPT. HEARN: I think that the important
24 thing to look at is the GM. You know, that the ship
25 was obviously in distress and it lost power, but I

1 don't know what you know about information from the
2 ship, as far as what -- I didn't listen to the
3 conversations or watch the NTSB reports. I didn't look
4 at the -- I didn't watch the NTSB hearings.
5 So, I don't know if there was water in one
6 hold or several holds, or what the report was from the
7 captain on that, and so, I could have theories, but
8 even a little bit more information would shave that
9 theory in probably the direction that we should go
10 because I know the ship pretty well, and I know what it
11 feels like to be in those situations with the weather
12 conditions, with -- you know, the rough weather and the
13 GM and how sensitive she was. I don't even know the
14 stability of that ship when she made that voyage. So,
15 I don't know what her GM or GM margin was.
16 MR. KUCHARSKI: If you care to look at it.
17 CAPT. HEARN: Okay, I mean, we didn't even
18 get a distress until the last second. So, I don't know
19 that they recognized.
20 MR. KUCHARSKI: Does anyone have any
21 questions while I'm digging that out?
22 CAPT. NEUBAUER: I have one question on the
23 system. Jason Neubauer, Coast Guard.
24 Sir, do you know if that email came just
25 directly to the master on the El Faro or if it was

available to the bridge?

CAPT. HEARN: The BBS?

CAPT. NEUBAUER: Yes, sir.

CAPT. HEARN: When I received it, I know the bridge was looking it. We had it received up there also. They had an email system that could look at that, or I could print a hard copy and go up there and discuss it with them, and I remember doing things like that.

CAPT. NEUBAUER: Was that definitely the El Faro?

CAPT. HEARN: I'm pretty sure the El Faro had that capability. Sometimes there were problems with email reaching different places in the ship, but the El Faro had a pretty good system for a while, but things change at lay-ups, and that ship did lay-up when I left it.

So, it could have been the -- even the voyage before. I know that the -- the bridge was completely networked in with everything.

CAPT. NEUBAUER: Was not?

CAPT. HEARN: It was.

CAPT. NEUBAUER: Okay, it was.

CAPT. HEARN: It was for quite a while, but that could have changed if another computer came

1 onboard or the server changed, I don't know what the --
2 I don't know what happened to that ship during lay-up.
3 A lot of the computers were taken off or moth balled
4 and then they might be changed because there was a lot
5 of updates that happened in a lay-up period. That sets
6 back all the networking, and if you can't get -- you
7 know, good IT to help you, then they may not get to it,
8 because it would not be as much priority.
9 CAPT. NEUBAUER: In your experience, there
10 were some issues on other ships with the email routing
11 to certain computers? Is that --
12 CAPT. HEARN: Yes, IT problems.
13 CAPT. NEUBAUER: Okay.
14 CAPT. HEARN: The ship would come into
15 Jacksonville and there was an IT department and they
16 would try to keep up and maintain that. So, we had
17 probably better support than most.
18 CAPT. NEUBAUER: Okay, thank you.
19 MS. BELL: I'll ask a question real quick.
20 Carrie Bell.
21 In terms of the -- when emails were sent
22 out, were you -- my understanding is that the captain
23 is responsible for sending all the emails out.
24 So, if everyone would be, you know, doing
25 email or whatever, they would all get sent out when you

1 sent them out. Is that correct?
2 CAPT. HEARN: Yes, unless it was automated.
3 So, if I didn't send them out, they may be in the
4 automated cue.
5 MS. BELL: Okay, so, they would be sent out
6 automatically --
7 CAPT. HEARN: Yes.
8 MS. BELL: -- even if you didn't send them
9 out?
10 CAPT. HEARN: Correct. If I didn't force the
11 system to update, then the automated system would kick
12 in whatever period was set up for it, because -- you
13 could set hourly to, you know, every six hours or
14 periodically.
15 MS. BELL: Is that something you would set
16 up?
17 CAPT. HEARN: The captain would normally do
18 it, yes, during the business day, and then in the
19 evening hours, when -- because we were on east coast
20 time with operations, and then once we started working
21 with west coast, you might extend those hours to their
22 business day. So, you had updates on the time zones
23 that you were working with.
24 MS. BELL: Okay.
25 CAPT. HEARN: When the ship was working

1 overseas, you had all kinds of -- so, we had a busier
2 cycle, about every three or four hours.
3 MS. BELL: Okay, thank you.
4 MR. KUCHARSKI: Okay, this is Mike
5 Kucharski. I have placed before Jack Hearn, a copy of
6 the departure, trim and stability summary, as printed
7 out from the cargo macs of the El Faro at 1756 local
8 time, or east coast time, eastern standard time, on the
9 29th of September of 2015.
10 CAPT. HEARN: They had an eight-tenth's of a
11 foot margin. So, they had more than the minimum, and
12 when we talk about this, if you were -- if I was going
13 to start making theories, I would take a look at the
14 free surface correction over certain areas.
15 You have -- you know you have water in the
16 holds, that free surface correction could be a critical
17 issue, but one of the factors with the ship is, she's
18 low free board. You're going to get water on the
19 second deck, which I'm not exactly sure where that is
20 on the -- around the center of gravity of the ship,
21 because it's high, but it's also high on the second
22 deck.
23 So, you have a lot of water and volume that
24 can go side to side, and because it's open shelter
25 deck, could have been quite a bit of water in there,

1 especially if the ship was dead in the water.
2 My thoughts are that there was too much
3 water in there, and they were losing stability and the
4 ship would go to her side, because she was unstable,
5 and you had so much weight up top, and that cargo
6 system was pretty secure and good, so, she was unstable
7 until she did go to her side. That would be my first
8 thought.
9 Foundering, where she would go straight
10 down, I'm not sure about that. I know that the house
11 was ripped off the top of the ship, super-structure,
12 which indicates to me that she probably hit the side of
13 a wave in a pretty violent move, and I've been in those
14 violent situations where the ship does roll, like I was
15 talking about, the one ship took a 56 degree roll, it's
16 catastrophic.
17 So, I could see the force. That's
18 quarter-inch plate steel. The super-structure at that
19 level, ripping open, the steel plating of the
20 super-structure, and plus, the bridge wing has a large
21 lever that could have hit waves and lifted on that
22 bridge and also caused the super-structure to give up,
23 up there.
24 I don't think it sank by the stern or sank
25 straight down, and then the bridge let go. I think it

1 was on her side, where the bridge would fracture away
2 from the ship. I don't know how far the bridge was
3 found from the hull. But that might be an indication
4 that it separated sooner, because the ship would take
5 time to sink.
6 I hate to talk about this, but I know it's
7 part of -- you asked me my thoughts.
8 The ventilation trunks that we discussed,
9 once she's on her side, it takes no time at all,
10 because they're all open. It would -- that would be
11 fast, and she probably settled upright again in the
12 water, as she flooded. I think that the cargo fell of
13 the ship at that point because those waves do tear
14 apart those trailers. They just shred them, and it's a
15 violent situation for survival also because everything
16 is in the air and it's moving through the air.
17 So, anything that is broken is in the air
18 and if anybody is -- even on the surface, there is a
19 lot of materials flying through the air, so, that would
20 be violent too. So, it would be very difficult for any
21 person, no matter what structure they were in, to avoid
22 getting hurt because there's a lot of materials flying
23 through, including steel, sheets of plywood, doors off
24 of cargo, pieces of cargo, if it's moving at the speed
25 of the hurricane force, it hurts a lot more than -- we

had to bring guys -- the crew in, in violent storms because they would pick up cargo, we might not even know it, that's flying through, and it could reach as high as the bridge wing, 100 -- you know, 95 feet above water surface because the wind would pick it up from the bow and move it that high up, depending on what it was hitting and moving.

So, there is a lot of damaging debris moving very quickly, and that cargo does break up. When the -- when a trailer or container hits the water, they're not built for that at all. Some of them will sink. Some of them will float. But these were all secured together and blocked and they were attached. So, they were causing damage to each other, and then waves were breaking on top of them, and they're not built for that. So, they're going to start to break up pretty quickly, adding more damage while the ship is settling.

So, I think most of that cargo would break free of the ship and she would settle differently. That is a little bit of my theory of how and what -- from the little bit I know.

But the GM makes the ship unstable. You had a very small margin, but you had a huge amount of free surface, and de-stabilizing forces in there. I know that he's -- the captain talked about a 10 foot sea,

1 but I'm pretty sure it was higher than that, and it was
2 -- and another indication is that he didn't have the
3 opportunity to get out any more of a distress message
4 than just pushing the buttons, which I heard that they
5 even hit the security alarm, which made me think it was
6 Dani Randolph, because she is the security officer and
7 she would be thinking about that alarm.
8 MR. KUCHARSKI: How would you account for
9 Captain Davidson under-estimating the height of that
10 sea, if you know, you could use a seasoned seaman's eye
11 to go ahead and tell wind direction and everything
12 else? How would you under-estimate that?
13 CAPT. HEARN: The first -- one of the
14 problems guys have with catastrophic situations is
15 denying that they're in such a bad situation. It's
16 just denial.
17 You know, it happens with car accidents. It
18 happens to people, they don't think that they're there
19 yet, and they're looking for a way out, and that is
20 some of the bargaining process of finding yourself in
21 a very dangerous situation.
22 Because I have been in a couple of pretty
23 severe fires and other situations, the Great Land
24 flooding, you don't believe it's happening to you.
25 It's a surreal moment.

1 So, you have to face that and it's hard to
2 get to it, and if he was losing power, losing
3 propulsion, the ship was maybe broaching, they were
4 shifting seas, he probably had deck-edge emersion, and
5 he didn't realize. There was too much information to
6 process and I think that -- my understanding from the
7 news reports, he was talking to the Coast Guard or
8 talking to the company. He wasn't indicating to them
9 that he was going to lose his ship.
10 So, he must have thought that they were
11 going to get those holes pumped out and propulsion
12 back, because otherwise, you have a hurricane bearing
13 down on you, you're in a general quarters, may-day
14 situation.
15 But it's a hard decision to make. I've had
16 to call may-day before. It's -- you know, you don't
17 want to do it. So, he's trying -- he's processing
18 information. I'm sure it was very difficult moment,
19 and he may have that information and things happening
20 that he could not assess, because you can't see it.
21 It's violent.
22 Things are coming out. If they were losing
23 the plant, and other things were coming at him, he's
24 getting the word out. Like I said, he was talking to
25 the company about it and he might not have had enough

1 information, because I am sure the engineers were
2 scrambling. That's all I would know about that.
3 MR. FURUKAWA: Jon Furukawa. NTSB. Captain
4 Davidson's recording was -- I think he called it a
5 navigational incident. Is that what it was?
6 Navigational incident? I kind of thought that was a
7 strange to --
8 CAPT. HEARN: Well, he was speaking to an
9 operator.
10 MR. FURUKAWA: I think it was voice-mail. I
11 think it was voice-mail to the DPA.
12 CAPT. HEARN: Okay.
13 MR. FURUKAWA: Captain Lawrence, and it's --
14 I have a hard time wrapping my arms around calling it a
15 navigational incident.
16 CAPT. HEARN: Well, I'm sure he was trying
17 to get to explain things, and I don't know what
18 information he had to assess and pass on by email or
19 voice, to identify it, but it's a lot happening.
20 You know, if the cargo was stable, he didn't
21 know about cargo damage. He was dealing with
22 information below deck that he didn't have full
23 assessment of.
24 Like I said, we're looking at the stability
25 report. If he was dead in the water like that, he was

1 taking more water on the second deck, so you have --
2 you do have some stability loss with all that free
3 surface, because all those openings do open and let
4 water in, even though it's temporary, because it does
5 bleed off again, takes time, but it goes off, but then
6 you also have the de-stabilizing effect of a rough sea.
7 So, I don't know where he was taking the
8 seas, and we may never know that, but those were all
9 the easiest and most common things at sea, are going to
10 be a very serious problem very quickly.
11 MR. FURUKAWA: Jon Furukawa again, with
12 NTSB. Going down the road some more, let's see, your
13 career, you've pretty much been on ships with open life
14 boats?
15 CAPT. HEARN: Both. But I've been -- most
16 of my career is open life boats.
17 MR. FURUKAWA: Okay, and all Ponce Class --
18 CAPT. HEARN: Yes.
19 MR. FURUKAWA: -- ships are open life boats.
20 Okay, that class of ship was grand-fathered, to use a
21 term that's not on the regs, but she was -- her life
22 boats, you know, just as long as they were maintained
23 in good order and all that -- she was inspected, well,
24 she was inspected by ROLLS when she was built four
25 years ago.

1 CAPT. HEARN: Yes.
2 MR. FURUKAWA: If you know, so the life boat
3 would have to come down to embarkation deck, and only
4 one would be motorized and capable of carrying half the
5 crew.
6 If she was built today or when the new SOLIS
7 {phonetic} rules came in, she would either have to be
8 an enclosed life boat, that was to be boarded, in
9 storage -- in storage location and then be released or
10 -- and have 100 percent of the crew, you know, capacity
11 on each side or she could be a gravity dropped, you
12 know, free-fall life boat, and I'm also trying to wrap
13 myself around what the chances of survival would be,
14 you know, if they would be better or less, or you know,
15 any better --
16 CAPT. HEARN: Are you asking me a question?
17 MR. FURUKAWA: Yes, as a professional
18 mariner, what her chances -- what the crew's chances of
19 survival would have been --
20 CAPT. HEARN: In an open life boat?
21 MR. FURUKAWA: Open life boat and also --
22 CAPT. HEARN: And enclosed?
23 MR. FURUKAWA: -- life boat or a free-fall
24 and --
25 CAPT. HEARN: Open life boat, like I

1 described, there is two problems with a ship that has a
2 list, and I understand the ship had a list.
3 On the side that was listing away, you
4 probably could not get the life boat out of the
5 (inaudible) and down.
6 So, you're down to one life boat. The life
7 boat capacity was enough for everybody on the ship, and
8 the other survival opportunity you had on that ship was
9 with the life rafts for the crew.
10 But you probably would not go to life rafts,
11 it means -- it's hard to get into them. It's hard to
12 launch them. They usually flow free or break free, and
13 they're expecting much better conditions, plus the wind
14 that strong, or it's going to move the life boat -- the
15 life raft faster.
16 So, the life boat is heavier. There's a
17 good chance of getting into it on the deck, even with
18 that list. Launching it would be difficult because
19 it's got a -- you've got to frappe it in and then
20 frappe it out, and someone has got to do that on the
21 ship. So, they've got to let the crew go and you're
22 going to stay, and then maybe come down a ladder later,
23 and then you have to use a brake to lower it.
24 If you -- in that situation, you're lowering
25 a life boat full of people into a sea state, not

1 knowing what it is. You would want it to be on the lead
2 side away from the wind and away from the seas as much
3 as possible, and then they've got to get into a wave
4 height where it doesn't break over top of them and
5 launch it, quickly as possible and get away from
6 everything, kind of high, so that they fall back down
7 into the troff.
8 If they let it go too soon, they're going to
9 be in the air, and so, they've got to be in the water,
10 but this water is moving fast because there are violent
11 waves.
12 So, it's difficult. Timing. It's all
13 mechanical. It takes strength to do that, and people
14 that know -- that have good timing and understanding,
15 if they have the visibility to do it, and the sense to
16 do it. Can it be done? It can be done, but it's
17 difficult, and dangerous. It's very dangerous.
18 Then you've got -- if you're -- you're
19 leaving people onboard the ship, of course, hopefully
20 they can get to you by ladder, but once again, if
21 you're in a rough sea state where they can't, they've
22 got to the water and then get to you some other way or
23 use their survival suits.
24 Enclosed -- and then if they do successfully
25 launch, and they're timing was very good and they're in

1 the water, this ship sank and we know that there was
2 debris in the water. That's a danger for those people.
3 Also, just the sea-worthiness of that life
4 boat, full of people with waves probably breaking over
5 them, because it's a lot of wind and rough sea, so the
6 boat is going to take water and seas, and everybody
7 holding together is going to be very difficult in a
8 small open boat, to handle hurricane force conditions
9 and seas for a couple days.
10 Even for hours, it takes -- it's an open
11 boat. You know, it's just difficult. It's difficult
12 to be on the ship in those conditions, where you're
13 just hanging on all the time. So, they're going to --
14 the survival would be very hard, and the strongest of
15 people, I mean, debris hits somebody, it doesn't
16 matter. It's very unforgiving. They had that. The
17 hardiest of people and -- that are exposed to the
18 elements, they are still a human being with those --
19 you know, the vulnerabilities that all people have.
20 So, we talk about hypothermia and we talk
21 about conditions and what you need to manage on the
22 ship, so they're -- the crew will be familiar with
23 that, and then you have fear and concern and emotions.
24 They -- these situations I've been in, they run high.
25 So, that would be difficult. If you're in

1 an enclosed boat, it's a little bit easier to process
2 because they're together. Everyone should be together
3 in the boat. So, you're not leaving anybody behind.
4 They're strapped in, you can launch the boat and hope
5 for the best.
6 Now, you're in an enclosed boat. They have
7 some protection from the debris and the violence that's
8 out there. So, there is much better conditions, I'd
9 say, to survive it, but taking on water and people fit
10 to pump water out and manage that boat in a survival
11 mode, that's beyond my scope of understanding.
12 There may be other case studies of people
13 that have done it, because people have done some
14 amazing things, so you would hope that it would give
15 them a better chance. But the open boat, as we all
16 know, is very difficult. It's hard to launch. You
17 know, by hand, you have to let people down from the
18 ship. So, there is a lot of problems with the open
19 boat, the old gravity (inaudible) system compared to
20 what we have today. So, they were up against that
21 also.
22 When do you do it? The timing of that
23 decision is very difficult for the captain, like this
24 captain. I'm sure if he knew that something was going
25 to happen, he might have tried to do that sooner,

1 because if you know that you're going to lose your
2 ship, but you are trying not to face that decision,
3 because that's what is keeping everybody alive. You
4 have that very difficult decision to put your crew in
5 jeopardy, or do you keep them on the ship and try to
6 save that ship and the crew, because the best
7 protection for that crew is on that ship.
8 So, he's processing all these things at
9 once, plus the information, plus getting to people,
10 plus getting information from the ship and assess it,
11 and you're not talking about table arrange -- around
12 the table like this for hours, you're talking about 20
13 minutes. Plus, the violence of hanging and people
14 trying to deal with you, and there is a lot happening
15 very quickly. That's my assessment for that.
16 MR. FURUKAWA: Thank you very much.
17 CAPT. HEARN: Yes, you're welcome.
18 MR. KUCHARSKI: On the telephone? Anyone
19 with us?
20 PARTICIPANT: I'm still here, Mike.
21 MR. KUCHARSKI: Any questions, Mike?
22 MR. RICHARDS: No. I'd like to tell Captain
23 Hearn thank you very much.
24 CAPT. HEARN: You're welcome, sir.
25 MR. KUCHARSKI: Thanks, Mike. Thanks for

1 hanging in. Around the room? Going once.
2 CAPT. HEARN: Thank you.
3 MR. KUCHARSKI: Anything else you'd like to
4 add?
5 CAPT. HEARN: No, thank you.
6 MR. KUCHARSKI: Okay, thank you. If you
7 have anything that you'd like to add, that you thought
8 about, you know how to contact me.
9 CAPT. HEARN: Yes, sir, same -- likewise.
10 MR. KUCHARSKI: Okay.
11 MR. PETERSON: Hey, Jack.
12 CAPT. HEARN: Yes, sir.
13 MR. PETERSON: This is Lee. I want to thank
14 you for this. It's been a long haul in the day here.
15 Appreciate your time here.
16 CAPT. HEARN: Not all day. We're trying to
17 get to the right solution for this, after what we went
18 through. Good luck to you.
19 MR. PETERSON: Well, you and I are on the
20 same --
21 MR. KUCHARSKI: Okay, Lee, we had a woman's
22 voice coming right over the top of you.
23 MR. PETERSON: Yes, I hit one. I hit one.
24 CAPT. HEARN: Story of my life, Lee.
25 MR. PETERSON: Okay, thanks a lot, Jack.

1 Good to hear your voice again. Beyond this, good
2 memories with you. I appreciate your time.
3 CAPT. HEARN: Likewise. Thank you, sir.
4 MR. FISKER-ANDERSEN: This is Jim
5 Fisker-Andersen. Jack, thank you very much for hanging
6 in there as well and for your time. We all want to get
7 to the bottom of this too. So, thank you very much.
8 CAPT. HEARN: Thank you, sir.
9 MR. KUCHARSKI: Jack, thank you very much
10 from all of us. Much appreciated the time, effort.
11 CAPT. HEARN: Meeting adjourned?
12 MR. KUCHARSKI: I think so. The time is
13 8:17 and we have ended the meeting, ended the
14 interview.
15 (Off the record.)
16
17
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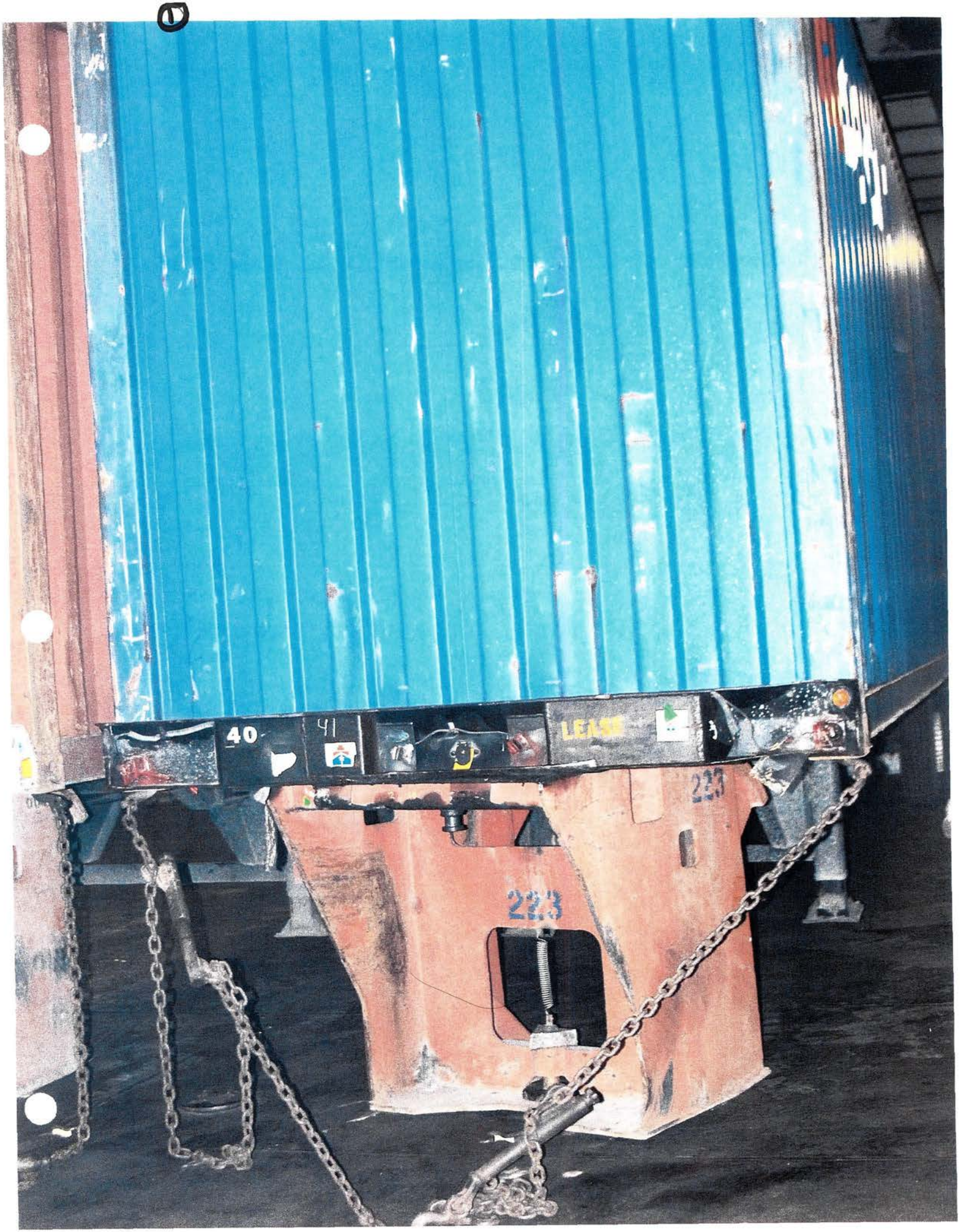
C E R T I F I C A T E

MATTER: El Faro Incident
October 1, 2015
Accident No. DCA16MM001
Interview of Capt. John Hearn

DATE: 03-20-16

I hereby certify that the attached transcription of page 1 to 467 inclusive are to the best of my professional ability a true, accurate, and complete record of the above referenced proceedings as contained on the provided audio recording; further that I am neither counsel for, nor related to, nor employed by any of the parties to this action in which this proceeding has taken place; and further that I am not financially nor otherwise interested in the outcome of the action.

[redacted]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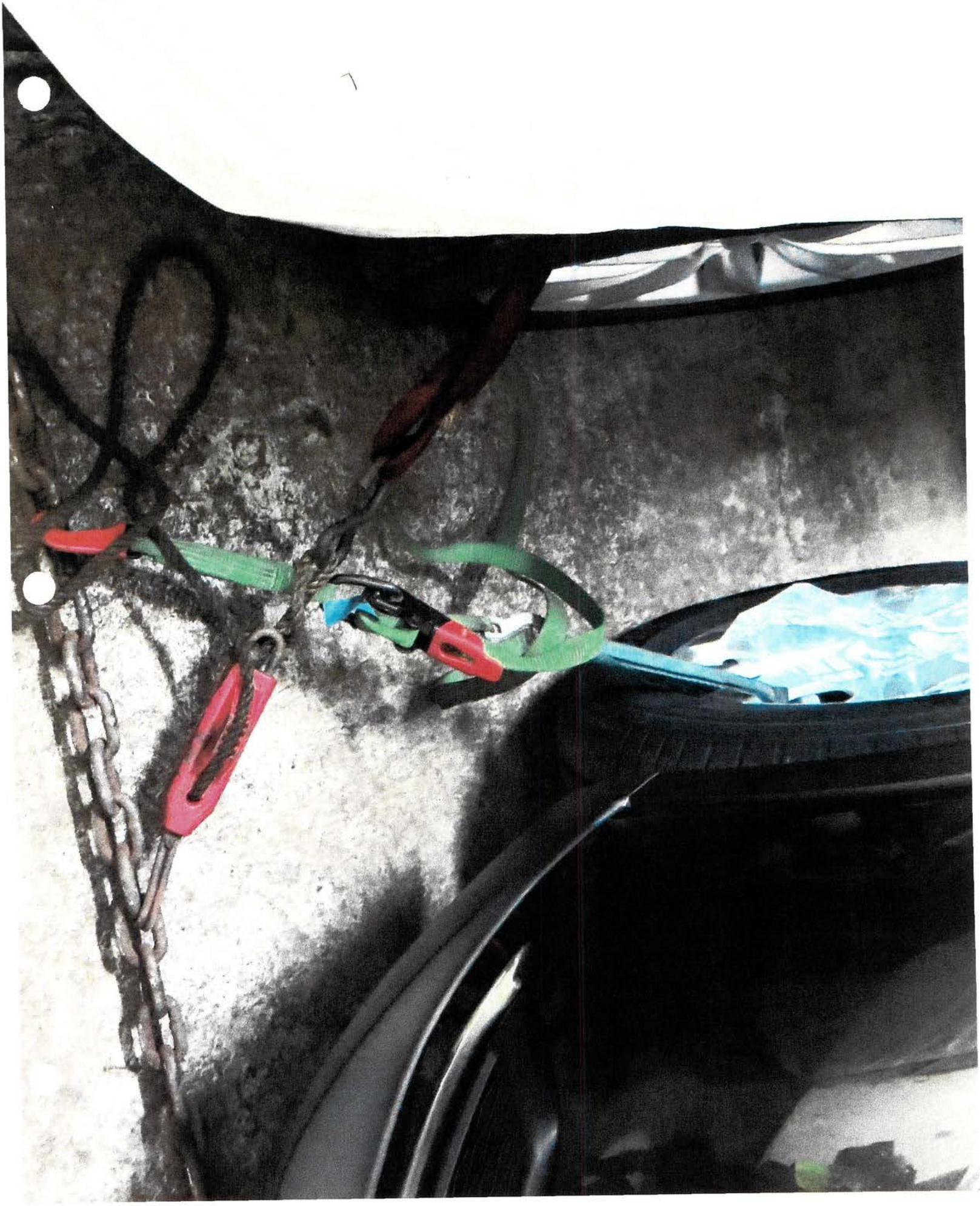

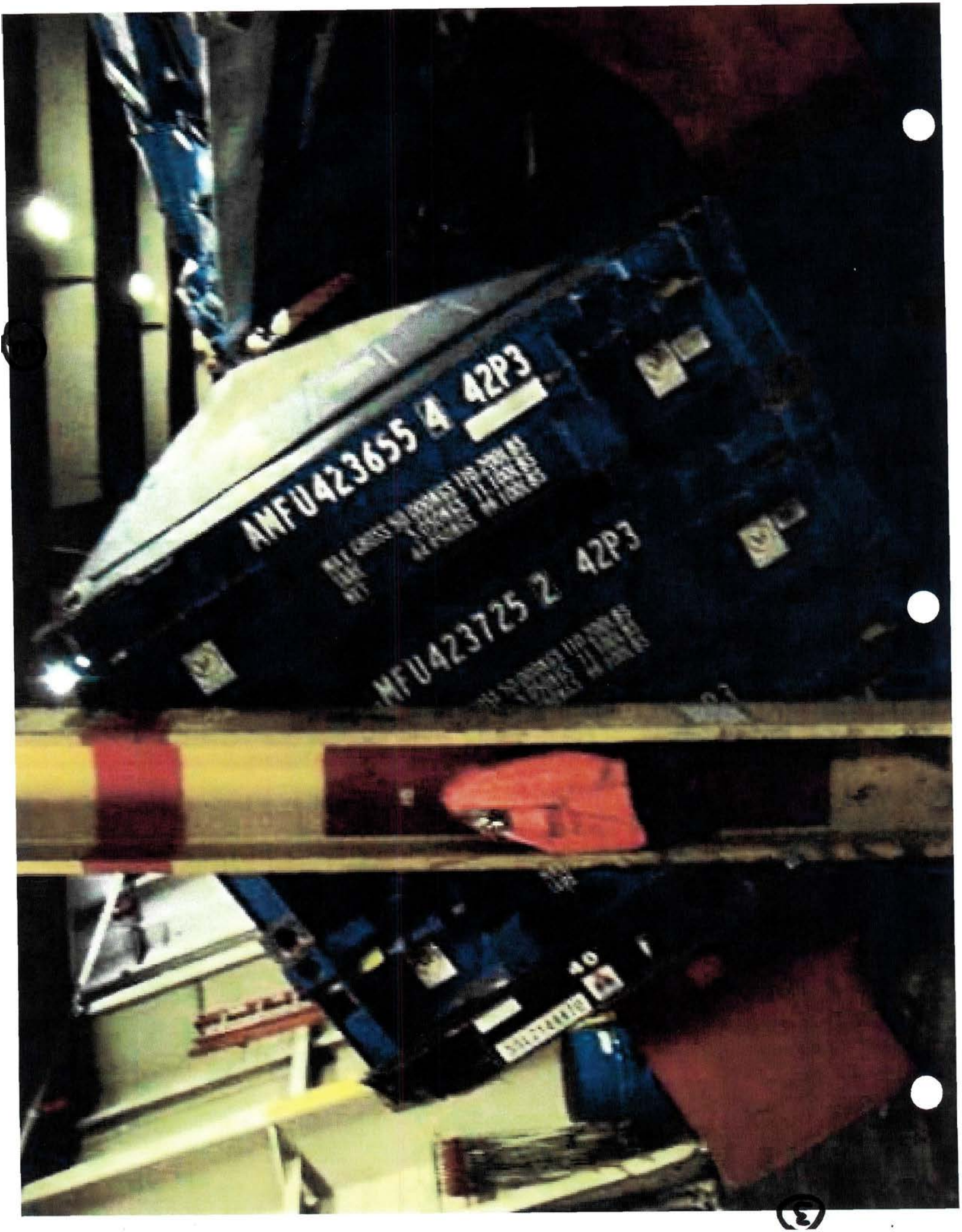

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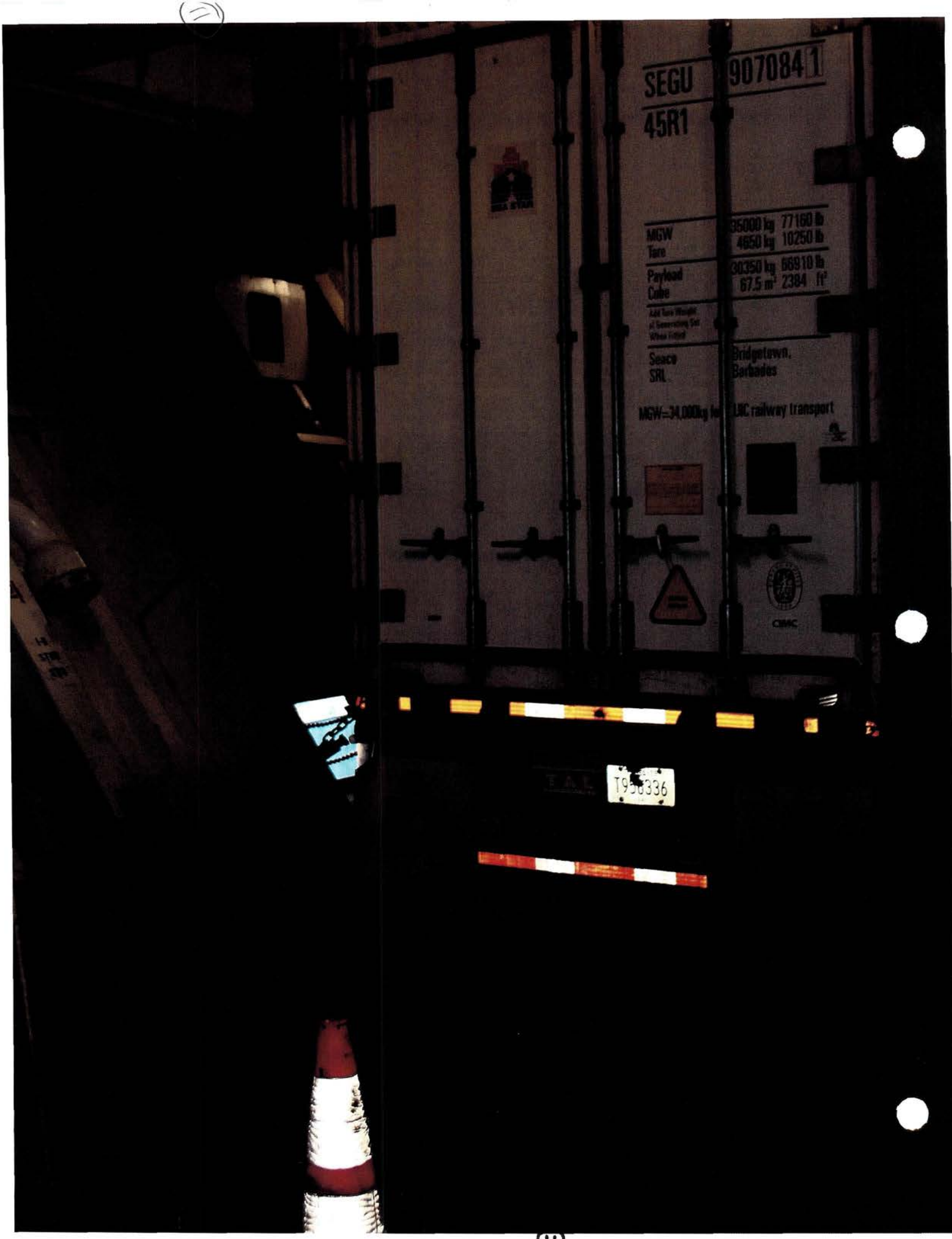
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Tare 4650 kg 10250 lb
Payload 30350 kg 66910 lb
Cube 67.5 m³ 2384 ft³
Seaco Bridgetown,
SRL Barbados
MGW=34,000kg for UIC railway transport
CIMC
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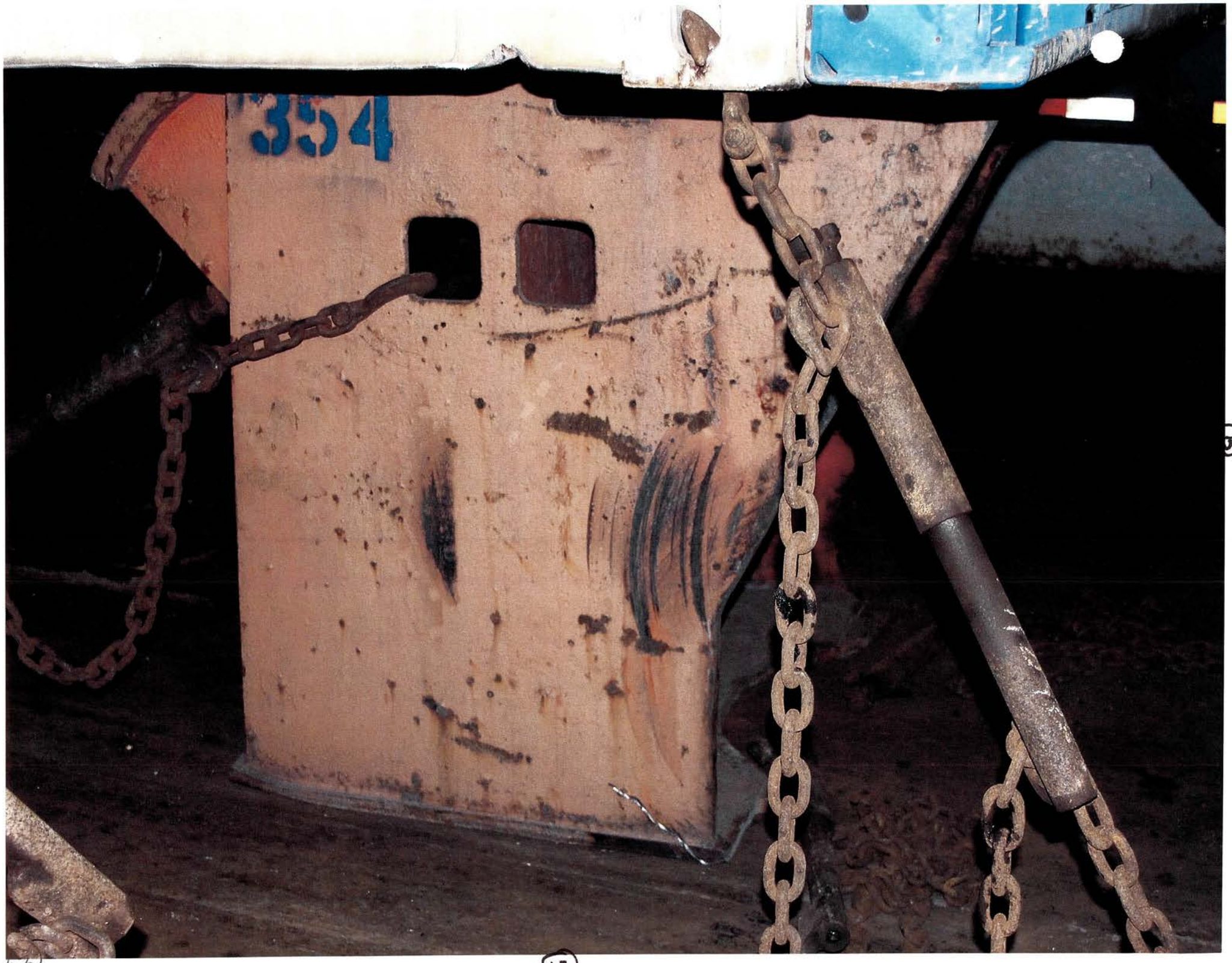
SEA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NTSB RESPONSE (in bold blue) to suggested errata.

NATIONAL TRANSPORTATION SAFETY BOARD

NTSB Accident No. DCA16MM001
THE EL FARO INCIDENT OFF THE COAST OF THE BAHAMAS
ON OCTOBER 1, 2015

INTERVIEW OF: CAPT. JOHN HEARN
Wednesday,
March 30, 2016
Smith, Katzenstein & Jenkins, LLP
Wilmington, Delaware

CORRECTIONS TO TRANSCRIPT SUBMITTED BY CAPTAIN HEARN

PAGE / LINE NO.	EDIT	Suggested CORRECTION	NTSB Response
9 / 1	myriad	MARAD	**AGREE**
11 / 6	on-license	unlicensed	**AGREE**
12 / 3	nu-class	new class	**AGREE**
13 / 8	Three-port	two port	**Do not agree. Transcript is correct as is.**
14 / 15	tie	tide	**AGREE**
14 / 23	fuel	fuel, (add comma)	**AGREE**
16 / 4	vehicle	vehicles (make plural)	**The transcript does have the word "vehicles"**
16 / 18	I	It could	**AGREE**
17 / 11	on	in	**Do not agree. Transcript is correct as is.**
17 / 24	"date"	delete or remove word	**AGREE**
18 / 5		Change to "both had rum tanks"	**Do not agree. Transcript is correct as is.**
19 / 10	"latches"	"Lashings"	**AGREE**
19 / 21	"latch"	"lash"	**AGREE**
24 / 21	"saw"	"seen"	**Do not agree. Transcript is correct as is.**
25 / 17	"the right other"	"the right way"	**AGREE**
25 / 19		Delete "loose"	**Do not agree. Transcript is correct as is.**
47 / 21	Inaudible	Insert; "carried, fit the same in the"	**Do not agree. Sounds like "went into the same stow lane"**
62 / 9	"steelers"	"stevedores"	**AGREE**
78 / 12	"bowsten"	"bosun"	**AGREE**
79 / 23	"bowsten"	"bosun"	**AGREE**
80 / 21	"bowsten"	"bosun"	**AGREE**
127 / 17	"a forward ship"	"athwartship"	**AGREE**
135 / 23	"say"	"stay"	**AGREE**
141 / 18	"in"	"on"	**Do not agree. Transcript is correct as is.**
143 / 24	INAUDIBLE	INSERT: "asked to add lashings"	**Do not agree. Sounds "pretty agreeable"**
144 / 21	"is varied size cargo"	"has varied sided cargoes"	**Do not agree. Transcript is correct as is.**

145 /18	HOV-2	"hove-to"	**AGREE**
146 / 14	"the ship was wrecked"	"a ship was wrecked"	**AGREE**
153 / 20	HOV-2	"hove-to"	**AGREE**
157 / 10	"the stern"	"astern"	**AGREE**
157 / 24	HEV-2	"heave-to"	**AGREE**
160 / 6	"others other"	"others over"	**AGREE**
161 / 8	"I did"	"It did"	**AGREE; But the recording actually states: "the ship astern of me. It did the same exact thing."**
161 / 22	"onto the bowed"	"on to the bow"	**AGREE**
161 / 24	HOV-2	"hove-to"	**AGREE**
161 / 25	HOV-2	"hove-to"	**AGREE**
162 / 12	"beamed"	"beam"	**AGREE**
163 / 8	"aversion"	"immersion"	**AGREE**
174 / 10	"wouldn't"	"would"	**AGREE**
178 / 7	HOV-2	"hove-to"	**AGREE**
178 / 9	HOV-2	"hove-to"	**AGREE**
178 / 13	HOV-2	"hove-to"	**AGREE**
178 / 20	"that HEV-2"	"to heave-to"	**AGREE**
179 / 6	HEV-2	"heave-to"	**AGREE**
180 / 6	HOV-2	"hove-to"	**AGREE**
180 / 22	"want"	"don't want"	**Disagree. Sounds like "your gonna pound into is " and not "you want to pound into is"**
183 / 5	HOV-2	"hove-to"	**AGREE**
184 / 13	HEV-2	"heave-to"	**AGREE**
184 / 16	"start running it"	"start running with it"	**AGREE**
187 / 17	"altogether"	"all together"	**AGREE**
192/ 7	"manual"	"manuals"	**AGREE**
192 / 15	"coaching and look"	"coaching. And look…"	**Do not agree. Transcript is correct as is.**
196 / 12	HOV-2	"hove-to"	**AGREE**
198 / 7	"there your"	"there for your"	**Do not agree. Transcript is correct as is.**
206 / 1	---	few "people who received reports when the ship" had trouble…"	**Do not agree. Transcript is correct as is.**
206 / 15	"McGee"	"Magee"	**AGREE**
206 / 16	"Tor"	"Turp"	**AGREE**
207 / 2,5,13,18 209 / 1 210 / 7	"McGee"	"Magee"	**AGREE to ALL**
210 / 10	"in"	"by"	**Do not agree. Transcript is correct as is.**
215 / 25	"see"	"sea"	**AGREE**
216 / 7	"a" plant	"the" plant	**AGREE**
231 / 10	"man"	"manned"	**AGREE**
236 / 19	"McCray"	"McRae"	**AGREE**
240 / 21	"2011"	"2012"	**Do not agree. Transcript is correct as is.**
242 / 3	"met"	"meet"	**Do not agree. Transcript is correct as is.**
242 / 5	"representative, when"	"representative. When"	**Do not agree. Transcript is correct as is.**
242 / 8	"ship. And"	"ship and…"	**Do not agree. Transcript is correct as is.**

254 / 18	“advise”	“advice”	**AGREE**
257 / 24	“ cargo was”	“cargo gear was”	**AGREE**
263 / 22	“lake boat”	“lifeboat”	**AGREE**
267 / 3	“bit”	“big”	**AGREE**
280 / 22	“tired”	“tried”	**AGREE**
281 / 21	“actual ballast”	“actual water ballast”	**Do not agree. Transcript is correct as is.**
281 / 22	---	“more weight”	**Do not agree. Transcript is correct as is.**
294 / 10	“roll up”	“roloc”	**AGREE**
294 / 17	most “fine”	most “volume”	**AGREE**
302 / 7	“they’d”	“they didn’t”	**Do not agree. Transcript is correct as is.**
304 / 6	“boson”	“bosun”	**AGREE**
305 / 18	“rows”	“rose”	**AGREE**
313 / 13	“quite”	“quiet”	**AGREE**
313 / 16	“walk in the guy”	“walk into a guy”	**Do not agree. Transcript is correct as is.**
313 / 23	“moral”	“morale”	**AGREE**
320 / 14	“the loading for”	“the loading port for”	**AGREE**
325 / 7	“shift”	“ship”	**AGREE**
335 / 4	“I”	“It”	**AGREE**
341 / 6, 18	“mac”	“Max”	**AGREE; also, all references to “cargo mac” should be changed to “Cargomax.”**
342 / 10, 11	“mac”	“Max”	**AGREE**
342 / 17	“the port side”	“shore-side”	**Do not agree. Transcript is correct as is.**
343 / 4, 17	“macs”	“Max”	**AGREE**
345 / 3	“OIT”	“IOT”	**AGREE**
345 / 9	“was listing in”	“is listening in”	**AGREE**
345 / 11	“Bill…”	“Bill Giles”	**Do not agree. Transcript is correct as is.**
347 / 15	“informed”	“in form report”	**Do not agree. Sounds like “Interocean would be informed”**
353 / 11	“COLTONBACK”	“Kaltenbach”	**AGREE**
357 / 24	“MCNAME”	“McNamee”	**AGREE**
358 / 3	(name)	“Michael Kraig Wallace”	**Do not agree. Transcript is correct as is. No name given; but noted you now remember his name.**
364 / 13	“reaper”	“reefer”	**AGREE; also at line 9 on page 364.**
368 / 1	“as”	“was”	**AGREE**
377 / 1	“home”	“in”	**Disagree. Sounds like “when I talked to them’**
379 / 15	“Citation”	“Cetacean”	**AGREE**
380 / 17	“Halle”	“Howie”	**AGREE**
382 / 9	“PUSOTARO”	“Pusetere”	**AGREE**
398 / 12	---	“regarding a voyage plan”	**Do not agree. Transcript is correct as is.**
398 / 13	“four”	“forty”	**AGREE**
399 / 21	(inaudible)	“Matanilla” Shoal	**AGREE**
399 / 24	“the Port”	“to Port”	**Do not agree. Transcript is correct as is.**
400 / 3	“weigh”	“way”	**AGREE**
408 / 21	“I”	“in”	**AGREE**
419 / 6	(inaudible)	“Buys Ballot’s Law”	**AGREE**
425 / 2	“dodge”	“Dodge”	**Do not agree. Transcript is correct as is. Dodge is mentioned at page 427, line 11. Agree with change here**

437 / 12,13	“ANVER”	“AMVER”	**AGREE**
439 / 5	“cued”	“queued”	**AGREE**
439 / 10, 11	“NAVTEC’S”	“NAVTEX”	**AGREE**
442 / 2,3,15,16	“NAVTEC’S”	“NAVTEX”	**AGREE**
444 / 19	“lot”	“long”	**AGREE**
450 / 4	“cue”	“que”	**AGREE**
456 / 4	“shifting”	“shipping”	**AGREE**
456 / 11	“holes”	“holds”	**AGREE**
460 / 5	(inaudible)	“davits”	**AGREE**
461 / 1	“lead”	“lee”	**AGREE**
461 / 7	“troff”	“trough”	**AGREE**
463 / 19	(inaudible)	“davit”	**AGREE**