UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

Investigation of:	
BOW TRIUMPH VESSEL CRASH INTO WHARF BRAVO PIER NEAR CHARLESTON, SOUTH CAROLINA ON SEPTEMBER 8, 2022	Accident No.: DCA22FM040

Interview of: JOHN THOMAS, Pilot
Charleston Branch

Charleston, South Carolina

Wednesday,
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APPEARANCES:

MICHAEL KARR, Investigator
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DAVID GALLOWAY, Immediate Past Chairman
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I N D E X

I N T E R V I E W

MS. [redacted] Good afternoon, everyone. This is Lieutenant [redacted] [redacted] Coast Guard Sector Charleston. We're here to do an interview concerning the investigation of the Bow Triumph collision with Joint Base Charleston Pier Bravo on September 5th, 2022. We will go around the room and do introductions at this time.

MR. THOMAS: John Thomas, Charleston Branch Pilots Unit 5.

MR. WARING: Brad Waring, W-a-r-i-n-g. And I represent Pilot Thomas, as well as the Charleston Branch Pilots Association.

MR. WALTERS: Crayton Walters, C-r-a-y-t-o-n. Crayton Walters. President of the Charleston Branch Pilots Association.

MR. CAMERON: John Cameron, C-a-m-e-r-o-n, executive director Charleston Pilots.

MR. KARR: Mike Karr, investigator in charge for the National Transportation Safety Board.

MR. GALLOWAY: David Galloway, immediate past chairman of the Commissioners of Pilotage for the Lower Coastal Area.

MR. GILSENAN: Ryan Gilsenan, G-i-l-s-e-n-a-n. Counsel for owners of the Bow Triumph.

MR. [redacted] [redacted] [redacted] S-c-h-a-l-l-e-s, investigating officer Coast Guard.

MS. [redacted] And on the phone.

MR. JONES: Good afternoon, everybody. My name is Rob Jones. I'm the deputy chief of investigations for the NTSB. I appreciate

you letting me sit in.

MS. [redacted] Thanks for joining us, Mr. Jones.

INTERVIEW OF JOHN THOMAS

BY MS. [redacted]

Q. We have a few questions. A couple of them are just very simple if you could --

A. Yes, sir.

Q. -- recall some things and then we'll kind of discuss some more of like the evidence that we found over the course of the investigation. Do you recall if both or just one steering pump was engaged during this transit?

A. Engaged would be one. Two would be available. Would be my assumption.

Q. Is --

A. But I'm not in the steering room so I would -- the short answer to the question is I don't know. But it would be standard on most ships to have two available at any time. That would be a deficiency otherwise.

Q. But to your knowledge, you were operating on one or one was online.

A. Right. The theory being obviously if the one fails, you switch to the other. I mean, I'm not -- engineering -- I don't know the engineering so I'm just --

Q. Yeah.

A. Want to clarify that.

Q. Can we talk about the Becker rudder. A couple people mentioned it in their interviews. I know command were given out --

A. Yes, ma'am.

Q. -- that we heard over the VDR --

A. Yes, ma'am.

Q. -- use the Becker rudder. So if you can just explain in your professional expertise what that is, and how that comes into play, if it affects your decision-making --

A. Yeah, so --

(Crosstalk)

A. -- a Becker rudder is something we usually use alongside at a dock almost like a stern thruster at a stop position where we would put a hard right, kick it ahead, with a bow thrust, and the ship would come to the port. So it's basically a rudder that's -- it's got a thing on the stern -- on the (indiscernible) and so as it breaks, it breaks more. It should increase your rate of turn in my experience. But it can also slow a ship down because it acts like a brake.

So it can have two different effects on you. You would hope your immediate effect would -- that it would increase your rate of turn. Some guys love them, some deep-sea guys don't like them because they shudder on the stern. And we don't -- you don't use them at speed. You don't use them in the ocean. And it's a technology -- I don't know how long that technology has been

around. But half of my career, we've had Becker rudders available.

Q. Does the performance of it change at all depending on the speed of the ship? Like is it less or more effective at certain speeds or with other environmental changes?

A. I would say -- so it's a two-fold question because a Becker rudder alongside a dock -- if you put her hard over and you kicked it ahead, that -- it's going to throw the stern away. It's a solution for not having a stern thruster. Also, in tight turns at slow speeds, it can make a significant difference in the rate of turn. One thing you give up is a little bit of power because you basically created a brake so it's a double-edged sword. In my experience, it's better to have a Becker rudder as opposed to a fixed rudder, just a standard ship fixed rudder.

MS. [redacted] Any other questions on that? Is that clear?

MR. THOMAS: John, do you have anything to add to that on the engineering side? I just --

MR. CAMERON: Well, the captain --

MR. KARR: Identify yourself for the record.

MR. CAMERON: This is John Cameron. Do you want to talk about what you saw in the captain's testimony about the Becker rudder where --

MR. THOMAS: Yeah. And that's one thing I read when -- I read all the statements. And the master's discussion about a Becker rudder and you all's understanding of it and an in-practice

understanding of it is something that we rarely we use to the maximum degree. I can only think of maybe two or three or four instances that I've ever seen use it. We use it when we're docking and (indiscernible) we want to throw a stern one way or the other. But it's a rare event that you would have to use it.

We -- obviously, when you ask for full Becker, you are going to slow down the momentum of the ship which is obviously going to decrease the amount of water coming over the rudder. But it should increase the rate of turn. And in this scenario, in this accident, when we were full hard left, I never anticipated that we'd need anything more than that.

BY MS. [redacted]

Q. So if I understand correctly, if you're at 45 degrees of rudder, the main part of the rudder is at 45 degrees and --

A. And then, the little piece --

Q. -- the Becker flap --

(Crosstalk)

Q. -- is also at 45 degrees.

A. It'll bang over some more. And it -- they're all built different but they gradually go like -- you know, like that. To create almost like that effect.

Q. Yeah. So -- but it's not like it engages separately from the main part of the rudder. Right? If you're at 20 degrees rudder --

A. I don't believe it did -- I'm not an engineer and I'm not

able designer but --
Q. Yeah, that's fine.
A. -- I don't believe that's the -- I do not think that this tip of the rudder can --
Q. Yeah, like there's no --
A. -- act significantly different.
Q. -- separate order or engagement --
A. No, no, no.
Q. -- or whatever. It's just 20 degrees rudder.
A. Yes, ma'am.
Q. The main part of the rudder is at 20 degrees.
A. Yeah.
Q. But the Becker flap --
A. Yeah.
Q. -- is also at 20 degrees so it's --
A. Yes. And then, there would be different characteristics for that in the ship's particulars.
MR. WALTERS: I think your -- I don’t think I agree --
MR. KARR: Identify yourself for the record.
(Crosstalk)
MR. WALTERS: This is Crayton Walters. You made a comment that the Becker rudders are 20 degrees -- I mean, the regular rudders are 20 degrees therefore the Beckers are 20 degrees. That is not correct. If the Becker rudder goes to 20 degrees -- I mean, the regular rudder, the main rudder -- the Becker rudder is

a tab at the back that may go even farther --

MR. THOMAS: An additional 20 degrees off of that.

MR. WALTERS: An additional 20 degrees.

MS. [redacted] Yeah, so it would be --

MR. THOMAS: I think that's what's (indiscernible).

(Crosstalk)

MS. [redacted] Yeah. It's at 20 degrees off from where the main rudder is at.

MR. THOMAS: Yes.

MR. WALTERS: I couldn't -- again --

MS. [redacted] Is that what you're saying?

MR. WALTERS: I don't know what the degree of tab -- when you order a 20 degrees rudder on a Becker rudder, it doesn't tell you what the degree increase the Becker does.

MR. THOMAS: The back half.

MR. WALTERS: I'm just -- I just -- I don't know.

MS. [redacted] All right.

MR. WALTERS: -- keep my mouth shut.

MS. [redacted] Yeah. No, that's fine. You have lots of experience, too.

MR. THOMAS: He's got five more years than me.

BY MS. [redacted]

Q. And I mean, I reviewed the whole Becker manual and tried to educate myself on it because it was new to me.

A. Yes.

Q. It's not something we really go over a lot when we're doing port state control exams, you know.
A. Yes, ma'am.
Q. So I want to talk a little bit about changes in the hydraulic (indiscernible) if that's the correct word, of the channel.
A. Yes, ma'am.
Q. I know that Army Corps does regular surveys of the channel.
A. Yes, ma'am.
Q. And from what I understand, they occasionally relay those surveys to the pilots.
A. Yes, ma'am.
Q. Could you talk a little bit more about just how that process works like when you get surveys as a pilot from the Army Corps.
A. From what I understand, what we do below the weapons station is far more -- I don't want to use the word accurate -- but far more forthcoming than above the weapons station. And I don't want to -- I'm not saying that's a good thing or a bad thing. But the soundings that I was going on with my stuff was about 10 months old. November '21.

MR. CAMERON: This is John Cameron. If I could clarify that. That's the last published set of soundings that the Army Corps had provided. What we don't know is did they actually release those. I'm the liaison in our office to the Army Corps so I receive their sounding reports. The federal channel, which is from Goose Creek on down, we get very regular surveys. Typically, three times a

year we get a complete set of surveys. Above there, that channel is not part of the federal project.

It's managed, maintained by Joint Base. And normally, those soundings come to us by request. We have to ask for those. They are not published in the same way as the soundings for the rest of the harbor are published. And I don't know when they had last pushed out a set of soundings prior to the incident.

MR. THOMAS: Well, what we looked at was November of '21.

MR. CAMERON: Right. We do know that there was a published set -- there was a set produced, I'm sorry, or dated November of 2021. And then, the next set that we've seen is the day after the incident or two days after the incident. And there certainly is --

MR. THOMAS: September of '22.

MR. CAMERON: Yep, September 9th, I think it was. So that would be fair days after.

MR. THOMAS: Yeah.

MR. CAMERON: Of 2022. And there are significant differences in the (indiscernible) between those two sets of soundings.

MR. THOMAS: So it's a combination of that -- so John will get this information as our contact with the government. He'll relay it to our partners. We will download in CIQ.

BY MS. [redacted]

Q. What is that?

A. That's my PPU. That's the PPU that I shared with you. So

that give us a bit of it. And one thing that we have learned that -- and I could be -- I'm not -- I don't want -- the soundings that are south of that are just -- they're easy to read and they're not as easy to read north of that where the numbers were too close. You know, when it almost creates a black blob instead of seeing an actual number.

But generally, what we do is we regulate it based on BP Amoco, which is usually our deepest port up there at 30 feet or -- if we see some shoaling or something like that, you know, how deep will we go up there at the top of high water. And what we want is the -- is probably a meter or a meter-and-a-half underneath us all the time with some safety cushions and things like that. Obviously, there's some regulations on that for tankers versus container ships. You know, how much clearance you need under a vessel.

All I can tell you is from November '21 to September of '22, the shoaling was almost -- September '22, I would say the entire channel was 30 percent less than the projected project depth of 39 feet. Everything we were seeing was from into the channel as low as 24 -- 23, 24, feet all the way to about 30, all the way across. So we're talking about a significant difference. So we do know it's a shoaly area as some things are.

But since the dredging that we've done after the accident, it's already shoaled in another three or four feet. And this is not long. So there is something going on here. Being in the

river for 30, 35 years, we know there are parts of the rivers that do shoal but not to that degree. Not that significant. So I don't want to belay the point but -- do you have anything to add to that, John or Crayton as far as shoaling there? What -- she asked about published --

MR. WALTERS: Yeah, I --

MR. THOMAS: How we deal with it in the office.

MR. WALTERS: John -- when John receives the corps of engineers' report (indiscernible). And then, we look at it. But if we don't have updated versions, then we're having to go on (indiscernible) we're on outdated -- I don't want to say outdated but our last -- if the shoaling is quick, then it may not -- and we're a year out, it may --

MR. THOMAS: Be inaccurate.

MR. WALTERS: It's something that we need to know.

MR. CAMERON: This is John Cameron again. And I'm sure there's a good reason for this. I don't say this to impugn the Army Corps in any way. But when you go to the Charleston District website, there's a list of sets of soundings, upper harbor, lower harbor, Ashley River, entrance channel, Shem Creek (indiscernible) Charleston Channel is not in that set. It's not generally available. The rest of the harbor where we navigate is always available. You can always go and get those. So that's why I say we get them on request.

MR. THOMAS: Is that because the corps is not in charge of

dredging that?

MS. [redacted] It's because they consider it pertaining to matters of national security.

MR. THOMAS: That's why this is happening.

MS. [redacted] So they don't publicly publish it but they told me they willingly provide it to the pilots so that you all can use it for navigational purposes. But they don't --

MR. THOMAS: I've never heard that. But okay.

MS. [redacted] -- give it to anyone else.

MR. CAMERON: See, they don't know when they've done a survey so we don't know when to ask for a new survey.

MS. [redacted] So you only get one when you request it, basically.

MR. CAMERON: Right. And I might get the same one we got a year ago or they might have done one last week. We never know that.

MR. THOMAS: And after the accident, they were very helpful and went and did one right away.

(Crosstalk)

MS. [redacted] So prior to the incident, the most recent one you remember seeing was from November '21.

MR. THOMAS: That's what I would have had --

MR. CAMERON: I would clarify. That's -- in our research afterwards, that's the most recent one we found. I don't know if that had been provided to us or not.

MR. THOMAS: Yes, sir.

MR. KARR: Mike Karr with the NTSB. You commented that it's already shoaled in three or four feet. How did you learn of that information?

MR. CAMERON: We did get a set of soundings I think it was dated February this year.

MR. KARR: And who took those soundings?

MR. CAMERON: The Army Corps of Engineers.

MR. KARR: And then --

MR. THOMAS: That's after the dredging project.

(Crosstalk)

MR. CAMERON: Specifically, after dredging survey.

MR. THOMAS: They dug it down to 40 feet and it's already to 36, I think, or --

MR. CAMERON: Thirty-four.

MR. THOMAS: Thirty-four.

MR. CAMERON: Down six feet.

BY MS. [redacted]

Q. On that particular like turn --

A. Right where my (indiscernible). So that's part of why we've asked for a buoy to go in that position. That channel just needs to be adjusted more to the west. There's no doubt -- if it's not going to be maintained.

Q. When do you -- prior to the incident, when do you last recall reviewing soundings, seeing those surveys?

A. John does a good job of leaving -- specifically, I don't know the answer to that question. But it's -- I know that -- I just don't -- I couldn't tell you the last time that I actually took a look at it. But whatever is on my CIQ is what I have which would have been the download of November '21. So that's where I can go --

Q. Is that overlaying in real time when you're navigating?

A. No, it's not real time.

Q. Is that overlayed?

A. No.

Q. You're not looking at those soundings when you're navigating. Right?

A. No.

Q. But it's like another layer that you could look at it or --

A. Well, yeah, I --

Q. I'm trying to figure out how you would access it.

A. I guess the question is. So I would access it -- I could zoom in or zoom out but then there's some things on some of these charts where you zoom in -- you zoom in too much and then you get nothing but a blob of ink. And then somewhere you zoom out and then you don't see anything that's helpful. You just see a wide version. But I go on the published should be 39 feet. So when I look at a chart, it should be 39 feet.

Q. Where do you get 39 feet from?

A. It's in the projected depth. Right?

UNIDENTIFIED SPEAKER: Project depth.

MR. THOMAS: Project depth. Should be maintained at 39 feet.

MS. [redacted] Where is that, I guess, written?

MR. THOMAS: We've got --

UNIDENTIFIED SPEAKER: In the --

MR. THOMAS: It's on that screen we just shot.

UNIDENTIFIED SPEAKER: Right. We -- we've seen it on the Army Corps sounding sheet where they have an overlay of textbox of project --

MR. THOMAS: We'll send that to you.

UNIDENTIFIED SPEAKER: -- depth. And it's 37 plus 2. So it's 37-foot project plus the two-foot overcut.

MS. [redacted] Yeah, I've seen that. I'm really just curious like how you all are getting this information.

MR. THOMAS: But in my head, you know, that's obviously where I start. And then I go with what I know is the best of my knowledge without being -- having a sounding the day before.

MS. [redacted] So --

MR. KARR: Mike Karr with the NTSB. Kind of describe what other information you're looking at as far as preparing yourself for the trip down the waterway, down the river.

MR. THOMAS: So the first things -- we would even call it a bull session. We sit in there with four or five pilots and somebody says I went up to BP Amoco and it felt a little shallow, the ship turned a little slow or something like that. Then we'll

adjust. Then we'll call for a sounding and find out that we've lost two feet. So then -- BP Amoco -- we're going up there 30 feet and 6 inches. Now we're going 28, 6. But we'll knock two -- as a group, we'll try to add some cushion to it not knowing exactly what it is. But we're trying to make an educated decision without knowing exactly what's going to happen tomorrow or whether a shelf will fall in or anything like that. Crayton, would you describe that as --

MR. WALTERS: So yeah, I would tell you that -- Crayton Walters. There are certain areas that are notorious for silting in faster than others. And when we're on ships, a lot of times we feel a ship characteristic, handling --

MR. THOMAS: Differently.

MR. WALTERS: -- different with shoaling. Perfect example is just above the bridge on Drum Island. It shoals in there all the time. And when we're making that turn sometimes, you'll feel it -- the ship not turn as quickly and immediately we set off a sounding (indiscernible). So those are -- that's why we're in the river every day. If -- and certain areas are like that. You can't do a survey every day. And our job as pilots is to understand what's going on in the river and that's how we find out.

MR. THOMAS: And Mr. Karr, one thing that's changed significantly in this harbor recently is this new dredging project. So things that Crayton and I have grown up with over the

last 30 years, where we know where shoaling is, but now we're seeing some shoaling in places we didn't see it before because now the -- it's deeper, it's wider, mud is moving in different places. So it's a very fluid situation. I don't know any other way to put it. But it's not a perfect science but --

BY MR. KARR:

Q. Mike Karr with the NTSB.

A. Yes, sir.

Q. This imperfect science and what you're describing, is this something that's happened recently in the BP Amoco area, around Pier B?

A. I will tell you that in my career, and Crayton will probably say the same thing, if anybody has had an issue, it's been in probably three or four, five areas in this river where you feel a little bit of vibration or you feel the roll of a ship. The short answer is yeah, we've always had shoaling and bends like that. So -- but not to that degree.

Q. I was --

A. Yes, sir.

Q. What I was following up on was you've always had shoaling but if -- but I thought I heard something like it's been exacerbated in the last two or three years because of different dredging.

Q. When I talk about that, I'm talking about like in general. At the new Leatherman Terminal where they just dug it out and they made this huge hole that naturally wasn't there before. And now

it's shoaling in. And it pieces off of Columbus Street where they just -- we went to 50 feet or 48 feet. So now we've created all this water flow that wasn't there before and is not natural. So obviously, things are moving in different directions. The Wando Terminal, Pier 3, they just shut down for 44 feet and above so -- because more -- you know, they dug this huge turning base and so now more volume of mud is moving in that direction.

So one berth is one (indiscernible) and one berth is the other -- they're on it like white on rice. They are on it. They have constant surveying. And in terminals like BP and terminal -- the actual terminal owners are very, very in tune to what's at their dock because they're responsible for 100 or 150 feet of their dock offshore.

So they want to make damn sure they don't tell a ship to come in at 31 feet and find out there's 28 feet at the dock and they got a problem. Because it's -- now they've got a problem. So they are very vigilant about what they accept. And ships are very vigilant about talking to a terminal and saying do you have the 30 feet that I need to say they are at low water or at a minus tide. Because you can't just think of low water.

You got to think of a full moon, minus tide, where you've lost a foot or two of water. So I mean, I'm getting off the point here but I guess I just want you all to understand that south of a weapons station, we've had some very good understanding and north of weapons station, I hate to use the term -- it's just a little

bit of the wild west up there and it just hasn't been as forthcoming as it has in some of the lower harbor where we have considerably more traffic.

MS. [redacted] So nothing north or upriver of Joint Base is federally maintained. Correct?

MR. THOMAS: I don't believe so.

MS. [redacted] Amoco (indiscernible) or BP?

MR. CAMERON: This is John Cameron. That's correct. The maintenance paid for by the federal government stops at the Nuclear Power Training Unit.

MS. [redacted] Wouldn't it be a little bit before then because I think -- like Pier Bravo is down river of the Power Training Unit. Right?

MR. CAMERON: It is, yes.

MS. [redacted] Where the subs are.

MR. CAMERON: But they have authorization to dredge to the Nuclear Power Training Unit. And they tend to maintain to that (indiscernible) for their own needs which --

MS. [redacted] But where you -- but where you stop getting all the surveys --

UNIDENTIFIED SPEAKER: When you stop getting data.

MS. [redacted] Yeah, where you stop --

MR. CAMERON: Oh, we get data --

MS. [redacted] -- getting data. Where they start protecting it a little bit and not releasing it as much.

MR. CAMERON: It actually depends because when we get soundings, we don't get them in a consistent format. So sometimes it goes to (indiscernible) and a little up range D to the next bend. Sometimes the soundings they give us do go all the way to the Joint Base. And we are the pilots for the subzone. They come and go from the NPTU. So I would have to check historically but I know they've given us a full set of soundings when we've moved a sub in and out of there. And because that's in their best interest. But that's another issue with getting soundings from them. Every time we get them, they come in a different format for that area.

MR. THOMAS: Which may not work in my software. It may not work in a ship software, as well. So I mean, there's not a lot of uniformity in there. I don't want to speak -- I'm not an IT person. But --

MR. WARING: This is Brad Waring. I believe that Mr. Karr was asking you a question of what did you have available to you in terms of depth during this transit other than your PPU? What were you relying on? And I mean, in other words, were you --

MR. THOMAS: My experience --

MR. WARING: -- relying on published depth?

(Crosstalk)

MR. THOMAS: Yes, yes.

MR. WARING: I think that's what you were asking far earlier like what --

BY MR. KARR:

Q. Yes, that's part of it or in preparation, what did you look at to --

A. Yes.

Q. -- to evaluate the depth that you were going to experience. Another question for you is -- at BP Amoco -- had -- you talked about changing the depth of the ships that -- the facility would allow to come in. Had that changed recently at BP Amoco?

A. Yes, sir.

Q. So tell me about those changes.

A. Well, it happens at -- fuel and chemical berths are very attuned to this. They want to be sure that there's not a tanker sitting on the bottom. So they're much more vigilant about it and vigilant is probably not the right word. But the short answer is I think we just had -- we got a meeting tomorrow with BP about what they -- and they've got some soundings and what they -- what ship draft that they will accept, that they're comfortable with coming in there. Obviously, they would like to have unlimited access but -- we do have a meeting with BP tomorrow. Right? About --

MR. CAMERON: Yes.

MR. THOMAS: -- what their -- and we have meetings with different operations about -- and we've been trying to do this for years. We've been trying to get quarterly reports or semi-annual reports from berths. It says just submit it to us but nobody

wants to pay for it. And nobody wants to put anything in writing that I have. And David can attest to this being an agent that we have 38 feet. No, man. If we have 36, we better know about it. Because we bring a 38-foot ship and she starts to roll when she's in there, then we got all kinds of trouble. So we're all very cautious there. The short answer is we find out about that and then we will adjust the draft down.

MR. KARR: And had there been a change shortly before September 5th or how soon before September 5th?

MR. THOMAS: We were down at 28 feet before that dredging project in November. Right? Of '21. We had gotten way low in Amoco.

MR. CAMERON: Yes. John Cameron. My recollection is that we had been limiting the max allowable depth to BP -- now called INEOS -- for quite some time.

MS. [redacted] What was the max allowable draft there at the time of this incident, September?

MR. THOMAS: I would say 30 feet or something, 29-and-a-half.

UNIDENTIFIED SPEAKER: I think it was --

MR. CAMERON: Twenty-nine-and-a-half.

MR. THOMAS: Twenty-nine-and-a-half. And we're playing with inches here. Which is another thing I want everybody to appreciate, obviously. Is that our tolerances are very slim.

BY MR. KARR:

Q. Just to clarify, too, for the transcript.

A. Yes, sir.
Q. When you describe the vessel rolling --
A. Yes, sir.
Q. -- can you tell me what that is?
A. Well, that's just -- like when Crayton was talking about north of the bridge, whether -- she rolls one way or the other and whether she sucks down -- you know, how a ship handles whether she turns fast or slow. Obviously, the more water that's under the ship, the better she's going to handle. So when she gets close to a shoal, she'll roll. Or when she gets to shallow water, she won't steer as well as if she will offshore. And in this incident, clearly, there was some suction on that port quarter.
MS. [redacted] What underwater -- what under (indiscernible) clearance are you as a pilot comfortable with for --
MR. THOMAS: Ten percent.
MS. [redacted] -- a chemical tanker?
MR. THOMAS: Ten percent of the draft. So if it's a 40-foot draft ship, I'd like to see it minimum of 44 feet. Is that -- what's the regulation? A little stricter than that?
MR. CAMERON: This is John Cameron. The Commissioners have a guideline of seven to ten percent which we interpret to mean seven percent over a pinnacle or a (indiscernible) and 10 percent over a more sustained feature that would induce (indiscernible). We review the soundings that the Army Corps provides to us and review each reach of the channel to determine the controlling both

pinnacle and sustained shoal. And figure out which is more controlling on those two ratios, seven or ten percent, all the way out to the entrance channel. And then that determines our draft allowances to different parts of the river that have different project depths and different conditions.

MR. THOMAS: So 25 feet, we'd be looking at 27-and-a-half feet. We'd want the 10 percent of the draft of the ship.

MR. CAMERON: We do allow for the tidal lift. The average tidal lift.

MR. THOMAS: So we can go up with that. And we have significant tide windows that obviously start at low water. And basically, with each hour of tide, we'll come up from say, 25 to 30 feet over a six-hour period as the tide comes up. And the tide window gets tighter and tighter. And BP Amoco, we have tide windows that are tide appointments. They're not windows. You come at that time or you miss it. As we do with lots of terminals.

BY MS. [redacted]

Q. So is you all's opinion that when it -- when you get below that seven to ten percent margin --

A. That's a big problem.

Q. -- you start to experience shallow water effect? You kind of already mentioned it. I don't want to put words in your mouth but --

A. No, but -- well, you can --

Q. -- I mean, what happens?
A. You can experience shallow water effect at 10 percent I mean ever under speed. Just naturally, a ship that's in -- out in the ocean in 1,000 feet of water is going to steer much freer than it will in a confined channel. Just the hydrodynamics along the side and underneath. It just -- it's too different scenarios.
Q. So for you all, it's not so much a specific underkill clearance. It's more based on the ship's draft as a whole and you just measure a percentage off that.
A. Yep.
Q. On the day of this incident, what was your understanding of the channel depth in that area like around that turn? How deep did you think the water was going to be when you all were coming through there at that height of tide?
A. Thirty-five to forty feet. Because the tide was coming up.
Q. And the ship's draft was --
A. Twenty-seven-and-a-half. Right?
MR. CAMERON: Twenty-seven and --
UNIDENTIFIED SPEAKER: And some change.
MR. CAMERON: Seven on the stern and 26, 7 on the bow.
BY MS. [redacted]
Q. So you were thinking that you had at least seven feet underkill clearance.
A. Yeah. And now that we know that it was shoaled in nine feet from that, eight feet from that on the edge of that channel. But

down as low as 24 into the channel.
Q. So one of the things the vessel provided was their passage plan that they had generated for this specific transit. Is this something that you saw or you were like privy to at all? And you can look through it. This is actually just part of it.
A. This is more of an internal document where the crew would go through it. And they basically will -- everybody basically puts their name on it. There's no position on here for a pilot to sign I don't believe.
Q. No, I didn't see your name on it. That's why I was asking. It has all the track legs, the waypoints.
A. Yeah.
Q. The plan, course and speed.
A. And this is -- in my opinion, this is if a pilot has a heart attack, somebody has got some idea what's going on. Totally incapacitated. That's the theory here. Obviously -- and the fact that it's a learning curve. It's a building curve. And that five people put their eyes on here and so maybe five -- somebody might catch a problem. I do see these quite often. I don't go through them.
Q. But you don't recall seeing this --
A. No.
Q. -- when you were on there. You reviewed the pilot card and all that other stuff.
A. Yes, ma'am.

Q. So you couldn't speak to where they got this information from, I guess?
A. No, no, no. Not at all. They got it from (indiscernible) I'm sure.
Q. Yeah. I mean, one thing I was noticing on here -- like they have a squat calculation for like each leg --
A. Yes.
Q. -- of the transit. And they basically gathered up the water depth, the predicted tidal height, and the planned speed for each leg of the track line and then calculated squat. Did you -- so I'm guessing since you weren't privy to this --
A. Yes.
Q. -- did you --
A. I was not shown this.
Q. Yeah. So you didn't --
A. I didn't review this.
Q. Did you have a planned speed for the transit?
A. No.
Q. I guess is my question.
A. Well, I -- in my opinion, I tried to keep everything under double digits in the channel. I want everything less than 10 knots unless it's something extraordinary.
Q. So you weren't --
A. I mean, that's all I can --
Q. So you all weren't -- between you and the ship's crew, you

all weren't planning a speed of 6.7 knots?

A. No. We were not -- and there's so many variables including the stage of the tide, the amount of Becker rudder that you order, or the amount of rudder you order will slow down, the number of turns. (Indiscernible) ship last night went from nine knots to seven knots in a turn.

And then when it straightened up, she went right back up to nine knots. So some things can make some significant changes in speed. And it's unlike -- obviously, unlike a car. You just can't put on -- and you maintain -- the engine is not strong enough to maintain nine -- it can't increase to keep that. It's going to slow down. And it's going to speed up. By natural forces, the machines just can't keep up with that.

MR. WALTERS: This is Crayton Walters. There's no cruise control on a ship. So you have bells. You operate under those answers (indiscernible) but ships -- you have meeting arrangements, you have tides, you have all sorts of variables that adjust your speed at any given moment through every aspect of the transit. So you would never have a transit speed of I'll maintain 7.2 knots. It just -- that's not realistic.

MR. THOMAS: And in this scenario, as in most scenarios, as in my scenario last night, I always keep before -- prior to a big turn or prior to any type of situation that's not completely benign -- some power in my pocket. Because that's all you got left. And there was a lot of discussion about the bow thruster

and all these reports -- the bow thruster would not have done any good. My thought was obviously that as the speed came down, I did have the thruster (indiscernible) so if it did get below five -- four or five, it might've helped a little bit.

And more speed, a more powerful ship maybe would've broken that turn. The Becker rudder certainly has an effect on speed. That shoaling on that port quarter, sucked that quarter in. And I mean, I truly feel that because at no point, were there any fathometer alarms going off. I didn't feel like a roll like I could feel if it -- if you get close to a bank or something, she wants to roll away. Didn't feel any of that.

BY MR. KARR:

Q. Could you keep describing what you just did as the hydrodynamic effects on the ship.

A. Yes, sir.

Q. Can you keep on describing it? Give us -- even more details than you've just given us now.

A. Of any generic ship or --

Q. No. What you felt happened as you were going down the river.

A. Yeah, yeah.

BY MS. [redacted]

Q. Did you feel anything --

A. Yeah. I mean, I completed the turn around the submarines and the second turn where the housing -- you know, that -- turning onto that -- towards Alpha. Like I said, as soon as I

straightened up, I went from full to half. To put some power in my pocket. And then, as I do normally, with any significant turn, I want the quartermaster to know what direction I'm going. So I put port 20 on there, I put (indiscernible) and then I leave it at midship. I don’t give them a course in turns like that because they're too tight and I don't want the guy to panic and go, oh, you know, I want to control the rudder. So and then, I just felt like the ship's quarter was coming in as the bow went out when it got to that extremist position even with 20 to port and then full to port and then full speed.

The -- it just wouldn't break that suction off that port quarter. So I mean, you've got a ship here and you've got this V and that water goes like this (makes whooshing noise) because we -- clearly the bow is in 35 -- you know, 35-feet of water. And clearly, the stern was in plenty of water because the fathometer says it and we didn't feel anything except for the fact that -- I've never seen anything like that where the quarter would not come around.

Q. Did you hear or see any alarms from the echo depth sounder?

A. No.

Q. Could you view the echo depth --

A. No.

Q. -- sounder from where you were standing?

A. No. And I will tell you -- in any ship on any day in this harbor at any time, echosounders are -- with the variation of the

rudder orders and the variations of the engine orders, there's going to be turbulence back there. It's not going to be a perfect science as you'll see in some of these -- and I'll review the echosounder, as well. You'll see -- and we sometimes will see when we're sitting in -- obviously, if we're at dock and we're going slow as stern to come off a dock, I know I got 20 feet under me. It'll say zero because there's a bunch of turbulence under there. Just like in your outboard.

Q. Is that what you think happened when it had several readings of -- I think it said invalid or --

A. Yeah.

Q. -- it wasn't getting a reading.

A. Yeah.

Q. You don't think it was because there was no clearance. You think it was just because of -- bubbles, turbulence.

A. Right. Because it goes from five meters to zero. A huge -- it would be one thing if it gradually worked its way down like a grounding, five, four, three, two, one. It went five, zero, five -- which is what we see when we have turbulence. When we have things that are affecting other than the actual bottom, the actual soundings.

BY MR. KARR:

Q. Could you tell more detail about after you started to clear the point and the vessel was still going towards Pier B --

A. To starboard --

Q. Why it wasn't coming to port? I mean, how was it tide? How was the tide interacting with it?

A. So -- yes, sir. The only thing I could tell you at that point is that that suction effect on the port quarter. And then, at that point, you do have flood tide on the port bow coming through there. So that didn't help. It obviously didn't help. I've never seen a ship of this caliber, of this -- these wonderful characteristics that wouldn't break that flood tide. That was not a significant -- in my opinion, that was not -- clearly, it didn't do it. But that was a piece of the puzzle, I'm sure.

And I think it was a perfect storm of those two things. And I think it was a 100-foot section -- 200-foot -- 300-foot -- whatever you want to call it of that channel that had come out into the main channel and sucked that port quarter in and then she would not come around. So -- and I think that from looking at the shoaling where that 30-foot line and it goes as low as -- 30 feet -- it goes all the way across the channel. Then it goes down from 30 down all the way down to 24.

And it crosses the entire channel where it should be 39 -- 37 plus 2. That ship is going to start handling differently when that draft gets -- she's not going to steer as well. So I think pieces of the puzzle started to unravel unbeknownst to me because the water wasn't there. So -- and then, that last piece of the -- she just wouldn't break. So -- I don't know.

BY MS. [redacted]

Q. If we could go back to a little bit before you get to the turn.
A. Yes, ma'am.
Q. We kind of want to just -- I guess -- learn about your thought process as you're approaching it. When you're on this leg -- maybe -- when you're approaching that leg, were you navigating on a specific course or --
A. No.
Q. -- just by --
A. No.
Q. -- alternating rudder commands and --
A. No. So one thing I could tell you --
Q. -- staying on track as needed.
A. One thing I can tell you is there are no real ranges in here that are useful. So I deal a lot with how I feel, how far I'm off of the marsh. And obviously, this beacon here, it looks like it's in the marsh but it's 200 feet out into the water. I mean, the marsh is up here. It's a little --
Q. Seventy-two.
A. Yeah, 72 is -- well, you know (indiscernible) 16, 17 feet of water. But so you're asking me prior to the turn --
Q. Yeah, as you're coming down this leg --
A. Yes, ma'am.
Q. -- were you navigating like on a specific --
A. No.

Q. -- course or --

A. No. So that -- and that was part of what I -- once we came around this turn to the right and then, obviously (indiscernible) obviously this next turn to the left. Part of what increasing and decreasing a rate of turn is to go from 20 degrees rudder to zero or 20 to 10 and just adjust it just to have a slow gentle pass.

So at this point, when I had 20 here just to -- or -- I don't know the timing. I don't know exactly where this is. And I put her midship for a little while just so I could -- because I know I'm going to slide like that when I come around. And the short answer is I don't use that range. We use this range a little bit inbound.

Q. Is that Charlie?

A. Yeah. But this range here --

Q. Delta.

A. -- there is no range in this world. So this is -- and there's no buoys in this world. Which is -- you know, in retrospect, that's probably a shortcoming of everybody involved. They're -- we probably should have a buoy on that shoaling a long time ago. And maybe we should have asked for one a long time ago.

MS. [redacted] Wasn't it discussed after this? Didn't you talk to James Sullivan about what came out of that, Mr. Cameron?

MR. CAMERON: Yes, ma'am. This is John Cameron. A week or two after the incident, we did ask for a buoy and it was established temporarily as 72 Alpha. And is it actually showing

on there?

MS. [redacted] No.

MR. THOMAS: No. But it's --

(Crosstalk)

MR. CAMERON: It's right above here. It is out into the channel. It was pulled out of the water --

MR. THOMAS: It's going to be here, John. Right? In this 24-foot spot? Well, we saw it go 24, 23.

MR. CAMERON: We put it on the 24-foot contour.

MR. THOMAS: Yeah, we're putting it right here, you know, basically or right in here. So --

(Crosstalk)

MS. [redacted] Is that where you're saying you -- and you believe a permanent buoy should --

(Crosstalk)

MR. CAMERON: Only two weeks ago -- so the buoy was pulled out shortly after it was established so that it -- so they could deepen in that area --

MS. [redacted] Um-hum. Yeah, they started dredging.

MR. CAMERON: -- (indiscernible). And then, after the deepening, the waterways (indiscernible) division of the sector asked us if we'd like that buoy to go back in. And we submitted that letter requesting such and that it be permanently authorized about three weeks ago.

MR. THOMAS: Now, if the shoaling -- and in my opinion, if

the shoaling is going to be as significant as it clearly is, and we're talking about three feet in six months --

MR. CAMERON: Yes.

MR. THOMAS: So we're going to have another -- and I'm not saying there'll be another -- but at some point, we're going to get back to this 24 to 28 which is that hunk of the channel. Maybe -- we're not -- obviously, not going to redraw channels here but we got to think about it differently. Do we -- you know, and obviously, we do. We do want to come more towards that side. But you're looking at Pier Alpha.

And thank God, it's not 1995 and there was an ammo ship. You know, I've been by there with ammo ships loading ammo for the Kuwaiti war. So there's a lot of things to thank God for. But in my opinion, yes, that needs to be there. And I'm just going to tell you right off the bat, I'm never taking a ship out of there again without a tug on the starboard bow period. So -- because I know I'm -- whatever happens here, I'm not going to get any second chances. So I will -- and that's a talk amongst us and the pilot and that's why we have a representative here of our commission. So we want to be proactive on all that.

BY MS. [redacted]

Q. Were there any official changes the pilots made aside from getting a temporary buoy in there? I mean, I'm sure you all had discussions afterwards. Were there any --

A. We're kind of --

Q. -- procedural changes you all had?
A. Well, the first procedural change we do -- the immediate thing we did is like high-water slack. And let's just regroup here and -- because we didn't know what we had. You know, we didn't know whether we had -- we ended up having 25 to 30 feet in the section where we thought we had 30 to 35 feet. But now we know what we have. Yeah, obviously, we're waiting on the conclusion of this investigation but we're -- in the -- I'm not going to speak on David's behalf but there will be recommendations for sure.

MR. GALLOWAY: But to answer that question, we did -- we requested the dredging. We requested the buoy. And --

MR. THOMAS: And the soundings.

MR. GALLOWAY: And the soundings. And I think you heard J.T. say at least -- every pilot is their own independent contractor here. But J.T., because of this incident, won't take that turn without a tug.

MS. [redacted] Have any other pilots made the same decision or --

MR. THOMAS: Sure.

MS. [redacted] Is that like just commonplace now that you're using tugs in that area?

MR. THOMAS: Well, I mean, what we have to realize here and Crayton will speak more to this if he chooses but there are so many different classes of ships. We have ships going to Nexen

(ph.) now that are basically 350, 400-foot ships that can stay in one -- the -- extremely maneuverable ships. There's nothing -- they lay cable. And they do extraordinary things. We have Newport (ph.) ships that are 300-feet long that -- smaller, very small, very maneuverable ships. So it's not necessary for every class of ship. But now that we've gotten into these -- and I don't -- this is no excuse for anything.

But now we're moving tankers out of there that are loaded because we're doing partial loads at BP. Then they're going down to Odjfell and then they're going to Kindle Morgan (ph.). This is something that we had not normally done in the past. When we sail from here, for the majority of my career, you'd sail out of here at 22 feet, 23, feet, 24 feet at the max because things would discharge the cargo. And we'd -- so it wasn't on the forethought of a heavier ship. Now, that is the case so yeah, we have to rethink about that.

MR. CAMERON: If I could, this is John Cameron. In my role within the pilots, what's changed since then is the Army Corps has provided us probably at least four sets and maybe five sets of soundings since this incident. There was a set immediately post-incident. Then they went into the dredging and they send me piecemeal after dredging. When they did dredging in one area, they sent me a new set for just that area. And that probably was three iterations. Then they sent me a complete set after the -- after their dredging project was done. And I pushed all those out

to the pilots. So that's one thing that's changed.

MR. THOMAS: And that was a significant dredging. They really dug a hole there.

MS. [redacted] Yeah.

MR. THOMAS: They dug a hole there. And that hole is --

MS. [redacted] Forty feet solid (indiscernible) --

MR. THOMAS: And that hole was collapsed in to 36-5, 36-7.

MR. CAMERON: They went to 40 and I think it's 34 now --

(Crosstalk)

MR. THOMAS: Yeah. So I mean, we're talking about --

MS. [redacted] In this same area?

MR. THOMAS: Yes.

MS. [redacted] Because I haven't seen --

MR. CAMERON: That's just one out of --

MS. [redacted] -- that --

MR. CAMERON: -- a thousand sounding numbers but yes.

MR. THOMAS: In a five-month period. So there's clearly something going -- and that's truly why -- you know, we didn't -- or itself might -- it's a suction effect. It's a very unique -- I've never experienced it in my life. So I don't know.

MS. [redacted] Who was your point of contact at Army Corps that sends you that?

MR. CAMERON: It's Wes Wilson generally. But for the Joint Base, it's Jeremy --

MS. [redacted] Johnson?

MR. CAMERON: Yes, Jeremy Johnson.

MR. THOMAS: So when we see those internally -- when we see something like that happen, we will adjust down on our draft limits going up above weapons station. And one thing -- I don't know who is responsible for dredging all this. I really don't -- it's not my concern. But we have submarines up here.

And I'm not exactly sure what they draw but I don't think the Navy wants 25, 30 feet here. If there's an emergency on one of those reactors, they want to drag that submarine out tomorrow. They can't do it. I mean, they could maybe do it at (indiscernible) water. I don't know what they draw.

I don't -- I'm not -- I don't know the technically what's -- some things they will share with us but -- I thought that was part of why they maintain that. And obviously, they do it when they order those things to go back and get new reactors put in. But if there's an emergency tomorrow and it's drawn 30 feet all the way across and that dome is at 32 or 33, that is not going to -- I mean, they'll get out of their (indiscernible) water but who is responsible for the dredging, I don't know. All I know is south of that position it's been a very seamless. The Corps has been so efficient.

MR. CAMERON: John Cameron. For the record, Wes Wilson and Jeremey Johnson are very responsive. They're very good partners. Individually, when we ask them for information, they try to get it. But I think the interagency wickets that they have to deal

with are more cumbersome.

MR. THOMAS: And they were very responsive on the dredging, too. As they are in a lot of situations, we just -- in shipyard creek where it shoals up. And -- in Leatherman where it shoals up, they're quick to respond for the needs of the local industry. Doing what the government is supposed to do. They're doing a good job. This piece, I guess there was just some kind of anomaly of who is responsible for this. I don't know.

BY MS. [redacted]

Q. So you probably already know this but we took your track lines, the ships that you navigated for -- I think we went back for two years just to kind of compare and --

A. Yep.

Q. -- see what other ships you had navigated up here. Most of them were -- and I have some stats for them. Most of them were much smaller.

A. Yeah.

Q. There was one, the Wave Knight, which is this one.

A. Yeah.

Q. That's a very similar like size and draft to Bow Triumph. So looking at those, obviously, it looks like this one -- which I don't know if it's missing some AIS points because that looks --

A. Is the Wave Knight --

Q. -- kind of off.

A. -- a weapons station, John?

MR. CAMERON: I think so.

MR. THOMAS: Yeah. So -- yeah.

MS. [redacted] So they were coming from --

MR. THOMAS: They were coming from here. Sorry.

MR. CAMERON: Do you have a date on that one?

(Crosstalk)

MR. THOMAS: Yeah, that's going to come out of turning base. That's a military ship.

MS. [redacted] Well, that explains why it was so far over. That was January 15th, 2022. Yep. It was coming for weapons stations.

MR. CAMERON: Yeah, so it would be out of the weapons station turn (indiscernible) and heading straight --

MR. THOMAS: That's why it was way over --

MR. CAMERON: -- into the --

MS. [redacted] So that's the reason that it was so far --

(Crosstalk)

MR. THOMAS: I was docked here. Docking pilot pulled us off. We come here and we drive out that way.

MR. KARR: So what you're referring to --

MR. THOMAS: Yes, sir.

MR. KARR: -- is (indiscernible) Alpha?

MR. THOMAS: Yes. So Wave Knight is not a comparable ship. I get that. And we did our own internal thing just so you know this so everybody -- the number of transits that I've had up here

is very similar. We're all like 10 percent, I believe, which is of my -- my moves are above that area. Which is where every pilot is. Because we just don't have a lot -- we have traffic up there maybe -- I don't know how many. John knows all the numbers. But I'm right there with every other pilot as far as the number of transits. But the ships are all different. They're tug and barges and the little (indiscernible) ships and the Nexen ships.

BY MS. [redacted]

Q. Is there a specific reason why the bow track line was -- I mean, I know it's not a huge difference but you were a little bit further over to the left.

A. No, I --

Q. In the Bow Triumph than the other ones.

A. The only thing --

Q. Was that intentional or not?

A. No, it certainly wasn't intentional and I certainly wish I would have been -- the only thing I don't know is if that suction started there and started pulling that stern in. I don't know. As opposed to driving over there. That's all I can say, you know. Because that's -- when I put that rudder midship to try to ease that rate of turn so that we come around -- but then she never came back after that with the 20 and the hard over.

So that's when -- where -- and it's hard to find the timing on that but I think that's when that port quarter got on that shoal. And then actually -- you know, ships obviously don't move

sideways. But clearly -- and you can see it in the track where that port quarter comes in. I mean, it almost like -- it's like some big of monster -- suction cup came out and grabbed it.

Q. So you think it was (indiscernible) suction effect for sure?

A. I know it was.

Q. Do you think it was also shallow water effect like --

A. Yeah, for sure.

Q. -- you know, noting like these drafts and stuff.

A. Well, knowing these -- and so knowing that -- if you're -- the ship is going to handle much better here than it is here. Obviously, we can't be here because that's the turning base and that's the -- all kinds of issues. For sure, yes. It's a little bit of everything. A perfect storm unfortunately. But I think that's true. I think the characteristics of the ships change significantly when you get into that kind of clearance of 10 percent.

MR. KARR: Let me ask some follow-up questions on that.

MS. [redacted] Yeah, that pretty much covers my questions.

MR. KARR: Could you share this one with the pilot?

MS. [redacted] Yes. Is that -- oh, yeah, these are the same.

BY MR. KARR:

Q. So what we're looking at is the diagram. This the historical record of downbound transits --

A. Yes.

Q. -- from all these ships listed on the side and this was put

together by the Coast Guard Navigation Center. So one of the questions I have for you after looking at this is why are you -- the Bow Triumph is over on the left-hand side compared to --

A. Yes.

Q. -- all the other vessels. So can you tell me why that is.

A. The only thing I can tell you is I know the flood tide is going to set me to the right. So I anticipated more flood -- more set to the right coming this way. The only other piece of that puzzle is if -- we got that -- that quarter got sucked in and then, clearly, I feel like I've -- I feel like -- visually, I felt like I was fine. And obviously, and I've seen tracks where people cut this corner before. So the short answer is I don't -- I can't -- I don't have an answer for you.

Q. Well, let me ask you this.

A. Yes, sir.

Q. So I mean, this track does show you cutting the corner --

A. Yes.

Q. -- and actually being outside the channel. So was that your intent?

A. No.

Q. So how -- if you can with this diagram, pointing at it, how did you envision that you were going to make this turn --

(Crosstalk)

A. Well, I didn't -- I don't -- I didn't -- I've been in this area plenty of times. And I didn't -- I did not -- never have I

seen a ship freeze up in the turn to that degree. So --
Q. So you have cut the corner before and never --
A. Many times.
Q. -- frozen. Now, I'm looking at the -- is that -- what does that diagram show --
A. And this -- I mean, this --
MS. [redacted] The colorful one over the soundings is his track lines from the last two years. The one over the chart is all vessels of similar size for the last year.
MR. KARR: Oh, I'm specifically -- he mentioned that he has done it before so does that --
MR. THOMAS: Maybe -- to not that degree. I mean, I'm looking at this. And I don't know --
(Crosstalk)
MR. KARR: We're looking at a diagram of his prior voyages for the --
MS. [redacted] Yep.
MR. KARR: -- last two years to show them coming --
MR. THOMAS: And are we talking about 50 feet here or 25 feet? I just don't -- I mean, I think -- I don't know -- I think we're talking about 50 -- 25 feet I'm -- and I think that was the difference. But --
BY MR. KARR:
Q. Oh, that they were shallow draft vessels.
A. Sir?

Q. The vessels were shallower draft.
A. I don't know that.
Q. Oh, but when you were talking about 25 or --
A. No, no, no, sir. I'm talking about the difference in these tracks. The difference in these tracks from here to here and here to here. I think we're talking about a matter of 50 feet. But I don't know.
Q. Earlier -- a little while ago, you were talking about -- when you were talking about this turn on another diagram, you were talking about you expected to slide and you did not.
A. Um-hum.
Q. Is that what you said?
A. Yes.
Q. So how would that -- so when I heard that, I was thinking that -- I expect when -- I expect when I -- as I come in this turn, this current is going like this, I expect the ship to go like this. I do not expect the ship to get sucked in. So I think -- and I'm totally honest here. I think that this suction started back here on this shoal and I was going like this. Because you would see the ship -- as opposed to what it normally would've done is go like -- I think the suction started back here where the shoal is.

And I think it (indiscernible) the quarter in and I never had a chance to drive the ship the way that I would want to normally drive the ship. Because the ship simply did not do what it

normally does. And if that shoaling, which is back here, right here, all this area right here where that significant shoaling is, is where this ship started to handle improperly. So at that point, yeah, you're going this way because that's the way nature is forcing that ship to go. Not because I drove over there.

I think that's part of the -- I think that's part of the -- I don't -- to cut it this significantly, no, this was not my intention to cut it this significantly. But I think this -- I think this suction effect from this piece right here brought the quarter in and -- yeah, we did -- that -- the hold on the quarter was far stronger than any set to starboard. Because I think of the characteristics of the shoaling and the channel.

BY MS. [redacted]

Q. I think he's asking about -- so we know that you started --

A. Yeah, I think you all --

Q. -- your turn or (indiscernible) port rudder like back here and then you went to a midship --

A. Midship, right.

Q. -- for a few seconds.

A. Yeah.

MS. [redacted] And then, it was when you put on port 20 again that there was no response. So I think maybe he's asking why you started the port rudder up here. Or what --

MR. KARR: No, I --

MS. [redacted] -- your intention was.

MR. THOMAS: I think you're asking me if I intended to drive over there. And my intention was not to drive that way. I think this ship -- or up here, this started to happen up here. At 25, 26, 27 -- I mean, we're talking about in the channel, zero, very little water underneath me. Very little water underneath me right here.

MR. GILSENAN: This is Ryan Gilsenan. So as I understand it, the bank suction caused you to cut the turn tighter than you would have if there was no bank suction.

MR. THOMAS: That's what I'm saying. Because I don't think the ship would handle -- I think this accident started here farther up the river. Here, where this -- when I'm in the channel, the ship is not -- so now the ship -- now the quarter is holding. Now, the ship is going like this. Like that. And it won't drive -- it wouldn't drive -- it wouldn't come off of that point.

It grabbed me like a magnet and did like this. I -- it wasn't my intent to drive a ship like that. Certainly not. This ship -- when I put their midship, I expected this ship just to go gradually like this. And what happened was that quarter just would not get off of that bank. It didn't come off of this bank right here, you all. And we're --

MS. [redacted] Would you mind --

MR. THOMAS: -- talking about 27, 26 feet in the channel.

BY MS. [redacted]

Q. Would you mind drawing like what you intended or anticipated the track line would have been --

A. I -- right --

Q. -- or your desired --

A. Right here. Right here. Where we know this 24-foot has gone into the channel to 24, 25, 26. And I'm drawing 27-and-a-half feet. And we're at 28, 27 feet in the channel on the (indiscernible) port quarter. My intention is when I put her midship for her to have a simple gradual -- as normal ships would act. But this quarter would not release and it just kept going like this.

The ship was going -- and you can see it in the track. It's just -- and that angle is exaggerated, of course. But that quarter kept getting closer. Not -- I didn't want it to go closer. I think it -- I think this accident started here. And it looks terrible here. I understand that. But I think where this suction started was up the river when I was in the channel. And it held that quarter.

And normally, like I was saying, normally, we roll off these things. I'd never seen a quarter hold it like that. And like I say, it's exaggerated but I've never seen that quarter hold like that and kind of pull me into a bank as opposed to rolling off of a bank. And I think -- because that bow was -- obviously, it's a one-foot less.

But no, it was not my intention -- no, sir. It was not my

intention to drive into that shallow water. I feel certain that this accident started here. And we were sucked in the entire time. And she wouldn't break. And that's where she drove. It was just along that mud bank. And then there was no coming off.

And obviously, I didn't know that because at this point, I'm going this can't -- what is this ship doing. Why is this ship -- why are we going over here. Why -- what is this phenomena that we're feeling. And it probably had a 200, 300-foot section of the port quarter sucked to the bank and she wouldn't come off. But that started 25, 26, 24 feet right here. I mean, that's all I can say. I mean, I totally understand.

But you can see where my track is relatively normal. It's in the channel. It's in a decent amount of water. Then at this point, she just won't -- you know, this suction started up here in the channel. When I put her midship. And when I went to the half bell. Because I wasn't anticipating any of this suction because I'm where I think I should be. And yeah, I would -- certainly wouldn't assume she was going to come around like this and cut that corner right in that world.

BY MR. KARR:

Q. Well, let me -- Mike Karr with the NTSB.

A. Yes, sir.

Q. Let me ask you here. So up here --

A. Yes, sir.

Q. The Bow Triumph is towards the left side of the channel. And

-- correct me if I'm wrong but --
A. Yes, sir.
Q. -- you mention that you were on the left side because you're anticipating the flood current coming up here. Can you tell me if there's anything else that is in this area of the turning basin or this part of the reach that --
(Crosstalk)
Q. -- puts you on the left -- that you say I want to be on the left side.
A. When you say left side, you're talking about outbound over here?
Q. Yeah, up on -- right.
A. Yeah.
Q. Because the --
A. Yeah, okay.
MS. [redacted] East bank.
MR. THOMAS: Well, yeah. All I can tell you is I'm in the channel. This range is -- after this point, that range is useless there because you're turning again.
BY MR. KARR:
Q. No, you said the range is useless because you're making a turn and so you're not --
A. Yeah. So there's no ranges in all this area here. So and I believe that -- yeah, obviously, and I would love for you all to ride a ship. But you're coming through this turn all you see is

Bravo. And you see this obstruction in the middle of the channel. So yeah, you tend naturally to stay a little bit to the left. And obviously, you know you need to make that turn. I mean, I don't think this is -- I don’t think -- you think I’m significantly left or what do you think?

Q. Oh, what I'm saying is in comparison to the other vessels.

A. Well, I guess I'm right in here with this whole -- and I think -- like I say, this is a swath. What's this channel?

(Crosstalk)

Q. Oh, I'm sorry. I'm sorry. You're the red. I was mistaken. So there's -- as you look up here, you're the red or the pink. So there's a green on the outboard side of you.

A. Well, I'm just saying, I think I was pretty -- in a normal position here. And I really feel like this accident started to happen right in this area where I was in the channel. Everything was fine. But the channel wasn't there. There was no water there. And she held that -- that quarter came in and then this whole ship kind of just worked its way into that shallow spot. It was not my intention to drive into there. That's all I can tell you.

Q. Understood.

A. Yes, sir.

Q. And my question was about -- up here in this part of the river, yes. You're --

UNIDENTIFIED SPEAKER: That's the --

Q. Of all the vessels showing here, you're on the left side.
A. Um-hum.
Q. So I'm wondering from local knowledge what it is that you said I want to be on the left side --
A. Well, I --
Q. You know, why weren't you over here on the right side with all these other vessels?
A. Well, first of all, I -- it's -- I'm assuming that from here to here, that we got plenty of water. And that's the range. That's the center of the channel, that line right there is the center of the channel. So I'm here, I'm in the center of the channel. Aren't I?
Q. Yeah, you are.
A. I mean, I'm not to the left.
Q. You're in range.
A. I'm not -- this is left. I'm not left of anything. But I hear you. Clearly, got left.
Q. Compare -- in comparison to your peers.
A. Yes, sir. Yes, sir. But I think I'm in the center of the channel here until I get to right here, this point, where, like I say, this is -- I'm here. This is me.
MS. [redacted] Um-hum.
MR. THOMAS: Yeah, that's me.
MS. [redacted] In the red.
MR. THOMAS: Yeah, so right there. So -- and I don't know

what these other vessels are but I swear that -- yeah, I know what it looks like but I know that that quarter -- and I've never experienced it in 30 years and I don't think that -- I hope I never experience it again but I respect it now. That that's what -- that phenomena does exist. And that V -- that V where the bow is and this -- it just kept that ship going like that into the shall waterway. And it would not break. So no matter what I did to come off, she kept driving it which is just -- to me, it's just -- it's so -- I understand the science of it. But it's -- I never seen it before.

BY MR. KARR:

Q. I've got some more questions. Any -- were there any issues -- when you -- the Bow Triumph came up the river, it unloaded cargo. Were there any issues with the inbound transit that you know of?

A. I wasn't on inbound.

Q. No, you were not on the inbound but you know --

A. Oh, no, sir. No, no.

Q. Were you aware of any?

A. No.

MR. KARR: Let go down my list. General question. What do you call the sections of these rivers? Is it a reach? From the different bends, you know, from --

MR. CAMERON: Up there -- it's John Cameron. Up there, they're referred to as ranges. Range Charlie, range Delta, Echo,

Foxtrot.

MS. [redacted] This would be --

(Crosstalk)

MS. [redacted] -- range Delta. Right? And this is range -- that's what you'd call Range Charlie?

MR. CAMERON: Except it's -- range Delta has two legs to it. And there's actually only a range on one of them.

MR. THOMAS: If you want to call it that. Yeah.

MS. [redacted] Yeah, so it's technically this one is range delta. Right? And then you have to make --

(Crosstalk)

MS. [redacted] -- a slight turn to port.

MR. THOMAS: Yeah. Very short -- it's such a short thing, we don't use it.

MS. [redacted] I just call it the wharf leg is what they called it in the passage plan.

MR. KARR: And on the date of September 5th, what was the BP Amoco terminal officially known as?

(Crosstalk)

MR. THOMAS: It was still BP or it was it INEOS yet?

UNIDENTIFIED SPEAKER: I think it was still BP.

UNIDENTIFIED SPEAKER: I think it was still BP.

MR. KARR: So BP Amoco is the correct term. And now known as INEOS.

MS. [redacted] INEOS.

UNIDENTIFIED SPEAKER: Everybody still refers to it as BP Amoco.

UNIDENTIFIED SPEAKER: It still call it Amoco.

MR. THOMAS: You still call Kendall Morgan Exxon.

MR. KARR: And Lieutenant [redacted] showed you the voyage plan and there's some tides on there over a meter. And I just want to verify that the tides were -- from what you recall -- that the tides were --

MR. THOMAS: They seemed strong that day. But nothing insurmountable. Just like --

MR. KARR: But the tides -- the range --

MS. [redacted] The height of tide.

MR. KARR: The height of tide.

MR. THOMAS: Yes, sir.

MS. [redacted] The --

MR. THOMAS: Oh, I think I was about halfway through. Flood tide was coming up.

BY MR. KARR:

Q. Well, that's my question. I was curious as to the height of tide.

A. I would say I'd have that plus three feet, two feet maybe.

Q. So the voyage plan showed 1.8 meters which would be close to six feet.

A. Um-hum.

Q. So you're thinking the tide was maybe --

A. Oh, no. I'm saying what -- yeah, what I should've had. That's what -- they're saying what they should've had. I'm saying what I had.

Q. Was --

A. Was -- I -- over these, I might've had two feet more -- these are (indiscernible) water, right, these soundings?

MS. [redacted] Mean low water.

MR. THOMAS: Mean low water. Right?

UNIDENTIFIED SPEAKER: Mean lower low.

UNIDENTIFIED SPEAKER: Mean lower low.

MR. THOMAS: Yeah, yeah. So 25, might've been 27 -- which I was at 27-and-a-half. And we're in the channel here. I mean, this is --

MR. KARR: Oh, but -- sorry.

UNIDENTIFIED SPEAKER: What was the tide that day?

MR. KARR: What was the tide that day?

(Crosstalk)

MR. THOMAS: Flood tide halfway up.

UNIDENTIFIED SPEAKER: Well, what is it? Is it six feet?

MR. THOMAS: Well, it's a five-and-a-half tide so it's probably two feet, three feet of additional water.

MR. KARR: Well, that's what I'm trying to square away.

MR. THOMAS: Yes.

MR. KARR: Because the voyage plan says that the tide -- they calculated the tide was about six feet in the voyage plan. So

when I write my report, I want to talk about how high the tide is so --

MR. THOMAS: Do we have tide book here?

MS. [redacted] I do -- I have the tide charts from that day.

(Crosstalk)

MS. [redacted] I want to say it was like a five-foot height of tide.

MR. THOMAS: Yeah, it's never six feet. I mean, I shouldn't say that. Rarely is -- like moving a big wind, it's -- we always say six but it's usually 5.3, 5.2, 5.4 or something like that. And we were somewhere in the middle of that flood tide.

MS. [redacted] Actually --

MR. THOMAS: So I would say --

UNIDENTIFIED SPEAKER: The height of tide is available.

MR. THOMAS: Yeah.

BY MR. KARR:

Q. The ship's voyage plan listed waypoints. Did you ever discuss waypoints --

A. No, sir. We never do.

Q. Were there ever -- were there any waypoints on your PPU?

A. There are but they're more for -- we use them -- yeah, we have them at -- in their -- at the (indiscernible) of each turn usually. And it's -- and it creates a track. Which -- usually we use it for passing and when Crayton is going to be somewhere and where I'm going to be somewhere. Because when we're on it --

that's the main thing we use those PPUs for now is -- there's four places we can meet in this river, we will make sure that's where we are. And obviously, they're -- and they're in the center of the channel all the way up.

Q. Well, I'm going to --

A. Same as the (indiscernible) on the ship.

Q. So I am interested in your opinion on that because the waypoints listed in the document -- and for me, I'm not a pilot. So I'm thinking, okay, well, that's where I'm going to sail my ship to and I don't want to turn and head to the next waypoint. So how do you --

A. Those are not -- yes.

Q. How do you interpret --

A. So if you had a waypoint that was in this channel which he may have had on his (indiscernible) I don't know. It would've been right here. Because that's what -- you know, go like that and go like that. Or however they do it. Obviously, you're not going to bring a ship to here and turn it. You might bring your 17 whaler here and turn it. But you have to turn before that because it takes a quarter mile, half mile to make that ship turn.

MR. WALTERS: From a navigation standpoint -- this is Crayton Walters. Waypoints are established through straight lines. And so, a straight line to a point, to a straight line to a point, to a straight line to a point. And the reality of driving any ship in a straight line to a point and then turning at

that point doesn't happen. So you have to -- if there -- you know, you have rate of turn and you have advance and transfer. There's are all the ways a ship turns. So -- I'm not sure if -- actually, do you -- I don't know that we have the routes that --

MR. THOMAS: I do.

MR. WALTERS: But it's not -- it's not a straight line, stop, a straight line, stop, you know, to waypoints.

MS. [redacted] Do the routes show advance and transfer like when you would start the turn --

MR. THOMAS: No.

MS. [redacted] -- for your PPU?

MR. THOMAS: No. Nothing -- if I'm in a fog or zero visibility in a storm, I use quarter mile in my -- when I can't see anything, I start a turn about a quarter --

MS. [redacted] As a rule of thumb?

MR. THOMAS: Depends on the -- yeah, roughly. And then, PPUs have made it -- life a lot more comfortable but -- yeah, that's about right. And obviously, you ease off the turn.

BY MR. KARR:

Q. Well, here's one reason why I asked that question because when I plotted the waypoint -- so I'm interested in your opinion on this and this is good education for me. So the waypoint looked like it was -- you know what. I withdraw my question because I cannot remember the diagram exactly so I'm not going to say that. All right.

A. Well, their route and my route are going to be -- the ECDIS' route is something that a third mate would've put in. And it's mainly about ETAs. It's not an exact science. And obviously, we turn inside these things. We turn outside these things. If we're passing somebody -- you know, I've passed ships here before. Somebody going into BP and somebody going out to BP. I'll -- you'll be -- so you use those as kind of a guidelines as opposed to an exact science.

Q. I'll take a risk here. So one of the things I remembered was I thought when I looked at --

A. Yes, sir.

Q. So I may not recall the diagram exactly but --

A. The waypoint is going to be out here.

Q. -- I thought the waypoint was like up here.

A. That's right. Which is -- if you went over here, you would be in big trouble.

Q. And a -- so I sort of saw a waypoint (indiscernible) --

A. That's right. Because they follow --

Q. -- like this --

A. -- the reach --

(Crosstalk)

MS. [redacted] -- this track line and that (indiscernible) --

MR. THOMAS: Right. And it's probably going to be right here. Something like that where you don't see any ships going. And that just shows you that the -- I hate to use the word -- the

uselessness of it. So obviously, it's great for figuring ETA to say, hey, we'll be dock (indiscernible) because it's going to go doot, doot, and losing these 30 seconds is irrelevant. We know when we're going to be there. I know when I'm going to pass Crayton, you know. I'll be there in 30 minutes. I'll be there in 34 minutes, boom, everything is good.

MR. WALTERS: I would also interject that any route that is being put into the computer or into that document could be generated by this third mate. And the next one could be generated by another third mate or the second mate. The point is -- his -- where he drops his pinpoint on his first straight line may be different from the next guide point. Does that make sense? That is not a standard waypoint by any stretch. Every waypoint is --

UNIDENTIFIED SPEAKER: Yeah, they use that track ball on the ECDIS and then click it.

MR. WALTERS: Exactly. So it's not -- so one may have a different track line than the next mate if that makes sense.

MR. KARR: It does make sense and thanks for this education because -- so what I've got out of it. It's not where they want to make their turn --

MR. WALTERS: No.

MR. THOMAS: They intend to be.

MR. KARR: But it's for calculating all the other time on each leg.

UNIDENTIFIED SPEAKER: -- they're running the track ball,

click, running the track ball, click. I mean, you got to see it on -- you know.

MS. [redacted] Yeah. And if you were navigating off of a good ECDIS, you could probably put the advance and transfer layers in there. And I forget what line they -- but it'll have the line on there where it actually tells you to start your turn.

MR. THOMAS: You guys will use them on your ships all the time.

MS. [redacted] Yeah.

MR. THOMAS: You see your --

(Crosstalk)

MS. [redacted] And it's based on your speed and everything.

UNIDENTIFIED SPEAKER: Based on current, wind.

MS. [redacted] So for a turn this sharp that's like almost 90 degrees, it would tell you to start your turn way back here. I mean --

MR. THOMAS: Which is -- yeah.

MS. [redacted] -- maybe not exactly where your turn started but --

MR. THOMAS: Right. Somewhere in that world.

MS. [redacted] Somewhere in this vicinity where you see the other ships turning.

UNIDENTIFIED SPEAKER: Nothing above the current though or the wind.

MS. [redacted] That's true.

UNIDENTIFIED SPEAKER: Or the draft.

BY MR. KARR:

Q. Tell me about this abandoned pier just to -- you know, just what you know about it.

A. I've been here for -- I've brought ammo ships there. I've seen them load for Kuwait there and Iraq there. It's always been something you have nightmares about because it's right out in the middle of the channel. I've seen quite a few close calls there. And so, in my opinion, I would love for it to be a shorter fishing pier. It was decommissioned. I haven't seen a ship there in 15 years. And I feel like it's -- if it doesn't need to be there, it shouldn't be there but that's not for me to decide obviously.

Q. Has it been officially decommissioned? Does anyone know?

A. It's a recreational pier now.

MS. [redacted] Not based on what I was told. But --

MR. THOMAS: Sorry?

MS. [redacted] -- I was told it was still eligible for use. It was still technically active.

MR. THOMAS: I thought we were told it was a recreational pier.

UNIDENTIFIED SPEAKER: I can answer that because I've been in discussions with the Air Force. And they say its present mission as part of their morale recreation and welfare mission. It's a fishing pier.

MR. THOMAS: So let's be real here. That's what it is.

UNIDENTIFIED SPEAKER: Yeah, that's what they've told me.

MS. [redacted] Yeah, it's not condemned or anything.

MR. THOMAS: No, no, no.

MS. [redacted] People can go --

MR. THOMAS: No, no, I'm -- it's probably condemned now. But -- yeah.

MS. [redacted] Yes.

UNIDENTIFIED SPEAKER: No, I think the first section is still a fishing pier unless you want to jump across the divide.

UNIDENTIFIED SPEAKER: It's a 260-foot divide.

MS. [redacted] Is that how long it is?

UNIDENTIFIED SPEAKER: But the signal tower is going to go. The dolphin -- the concrete --

MR. THOMAS: Thank God.

UNIDENTIFIED SPEAKER: -- dolphin that had -- with the signal towers on, that's going to go away.

UNIDENTIFIED SPEAKER: That's good.

MR. THOMAS: Thank God.

MS. [redacted] Have they already decided that? You have more information than I do.

UNIDENTIFIED SPEAKER: Yeah.

MS. [redacted] We'll talk. It's been difficult for me to get --

BY MR. KARR:

Q. Another question for you is in our first interview, you

mentioned you had been on ships that (indiscernible) a little bit.
A. Um-hum.
Q. Any of those ships -- do you recall any of those ships locking up in the area around BP Amoco or --
A. Yeah. So when I've seen -- and we've had this discussion before within my group. It's mostly with a loaded tanker inbound coming like this. She's making this turn and she gets in this area and she -- rate of turn slows, slows, slows. Sometimes you end up over here and you have to drive back. Never have I had a quarter suction effect like that.

I've always had it -- you know, she just wouldn't come around easy. But never have I had the quarter be pulled in like that. I've always had -- the short answer is here and like Crayton is saying, north of the bridge, or several places like that. Yes. Where the rate of turn will change because of the shallowness of the ship.
Q. Well, could you a remember specific time you've experienced that on a downbound voyage?
A. No. Downbound voyage?
Q. Yeah.
A. No. And I think part of it is this piece here is kind of a straightaway. So we're not really turning in this -- you know, from here to here, we're really not doing any turning. But at this point, where I think this ship started to get sucked in this direction, it was just something that I had not experienced

before. Like I said, I'd experienced where you might do this. And we don't -- I haven't seen it downbound at all. I've seen it on light tug and tows where they really slide because that's just the nature of the beast. But we normally see it loaded inbound. Crayton can tell me if he agrees. Some of these ships, they just -- it's a slow turnaround to the right.

Q. Okay. Going upbound --

(Crosstalk)

A. Yeah.

Q. -- by Pier D.

A. Yes, sir.

Q. For that description. If things had gone fine on September 5th and you delivered the ship to --

A. Odfjell.

Q. -- Odfjell.

A. Which I did.

Q. What was your next assignment?

A. Twenty-four hours later probably I struck out -- no, I had to go right back to work. Didn't I? I think I went right back to work that night.

Q. Well, no, if everything had gone perfectly.

A. I went --

UNIDENTIFIED SPEAKER: When you had -- that was your first mark. Right?

MR. THOMAS: Yeah.

UNIDENTIFIED SPEAKER: Second mark? Going to another ship.

MR. THOMAS: I kept working.

MR. KARR: So would you --

(Crosstalk)

MR. KARR: Would you have had an assignment or would you come to the pier and say, okay, what do I got now or how does it work? How does -- how --

(Crosstalk)

MR. KARR: If nothing happened that day, what would've been the normal process?

MR. THOMAS: I would've gone to the dock. We don't leave the ship until there's a line on the dock. I would've got picked up and I would've gone to my office and be reassigned to the next vessel which I did anyways.

UNIDENTIFIED SPEAKER: We have a rotation of pilots.

MR. THOMAS: Yes, sir.

UNIDENTIFIED SPEAKER: So we have -- as our rotation works with the pilot, he gets three jobs, then goes to the bottom list. That maintains a level of rest.

MR. THOMAS: Twelve hours.

UNIDENTIFIED SPEAKER: Take the fatigue out. You're anywhere from 18 to 24, 36 hours before your next work job. And three jobs generally take --

MR. THOMAS: Twelve hours.

UNIDENTIFIED SPEAKER: -- anywhere -- 12 hours -- 8 to 12.

Whatever hours resting.

MR. KARR: So say that slowly. So you have how many pilots are on watch?

UNIDENTIFIED SPEAKER: Nine -- eight -- nine pilots.

MR. KARR: Nine pilots.

MR. THOMAS: Yes, sir.

MR. KARR: And then, walk me through it again. I --

UNIDENTIFIED SPEAKER: So nine pilots.

MR. KARR: The information came by fast.

UNIDENTIFIED SPEAKER: I'm sorry.

UNIDENTIFIED SPEAKER: And listen to the question. The question was had this not occurred, what would his rotation look like?

UNIDENTIFIED SPEAKER: I'd have to look at the list but I think the list would say if he had one or two jobs, he would've gone to a third job or a second job and then --

MR. THOMAS: Gone to the end of the list.

UNIDENTIFIED SPEAKER: Gone to the bottom of the list after --

(Crosstalk)

MR. THOMAS: Rested, rested, rested. As these guys get three jobs, then they go behind me.

UNIDENTIFIED SPEAKER: (Indiscernible).

MR. KARR: So it's -- he could have had up to three jobs --

UNIDENTIFIED SPEAKER: Or after this one, two.

MR. KARR: Right, yes, exactly. And the process is you -- you arrive at the -- well, tell me what happened that day at Odfjell when you got there. How did you get your next job?

MR. THOMAS: Man, I don't know what I had after that. I mean, all I knew is if I didn't get back out in the river right away, I was never going to get back out in the river.

MR. KARR: Understood.

MR. THOMAS: So I didn't report off. I didn't do anything. I just went straight back to work.

UNIDENTIFIED SPEAKER: You did (indiscernible) blood test.

MR. THOMAS: I did do that. Yeah. And I submitted my statement and I --

MS. [redacted] We had an interview the next day.

MR. THOMAS: Interview pretty quickly. But I think I worked all night.

MR. KARR: Yeah. So well, specifically, what I was wondering about is did you call in the officer from the terminal and say where do I go or did you go to the office and --

MR. THOMAS: Well, after we had the collision, the first thing I did -- I mean, it's in the report. We checked for any --

MR. KARR: Well, that's not what I'm -- I'm just --

(Crosstalk)

MR. KARR: -- interested in your rotation.

MS. [redacted] After you got off the ship.

BY MR. KARR:

Q. Off -- I'm interested in your next assignment. The process of --

A. The process was after I did my drug test and my alcohol test, I went to our dispatch office and asked them what my next job was.

Q. You actually went to the office?

A. Yes, sir.

Q. Is that something you --

A. Yes, sir.

Q. If it had been --

(Crosstalk)

A. -- I understand what you're saying.

Q. Yeah.

A. Yes. So we're dispatched from our office. You're right. So I went back to my office. Did what I was supposed to do relating to this incident. And then -- we'd have to look at the list whether I kept working. I can't remember.

UNIDENTIFIED SPEAKER: We can provide that.

MR. KARR: Well, no. I just needed that information. And that's all I need.

MR. JONES: Mike, could I jump in for a little bit?

MR. KARR: Well, let's -- is there anybody else here?

MS. [redacted] I had a quick question. And I'm sorry if I'm belaboring this.

MR. THOMAS: No.

MS. [redacted] But can you just explain --

MR. KARR: One moment, Rob.

BY MS. [redacted]

Q. Just explain again why you had port 20 rudder up here or why you -- I don't know if you were intending to start your turn there or --

A. Oh, no, no.

Q. I think earlier in the investigation, you alluded that you were --

A. Yeah.

Q. -- kind of testing the maneuverability. Just --

A. No.

Q. -- explain that again.

A. So the way we make turns is giving a little rudder, easing a little rudder. Rarely, rarely ever in a turn -- and this is -- rarely in a turn in one direction do we give counter rudder in the other direction. In other words, I never want my rate of turn to get so high that I need counter rudder to bring it back this way. So I usually just do -- and I want the quartermaster to know what's getting ready to happen. We're getting ready to go left, we're getting ready to left.

So I midship -- and left (indiscernible) to see how the ship is going to handle and see if -- and a rate of turn increased real nice so I put her midship. And I was thinking she's just going to go from like a 20-degree rate of turn which we would have to look at down to 10, 5, and then she quickly went to zero. And then I

put her 20 again because I -- you do not want to go zero because sometimes you'll hit zero, then she'll start going the other way.

Q. You lose it. Yeah.

A. That's what -- I think at that one point, that's when it grabbed that shoal right there in the channel and pulled that quarter in. And when I put that 20 back on and the full back on and the power back on, the shoal had it. And so, to answer your question, I give rudder and then I take it off. And I rarely give -- never -- rarely -- and never do I give helmsman any control in a turn like that via steady as she goes or one, two, zero. Rarely would you give any -- because you don't know if he's going to panic and may put a little right rudder on there. And once he goes to the right, she's gone.

Q. So --

A. And I've been in this situation where somebody has put the rudder the wrong way. And you catch it. We're looking at the rudder and okay, we look at it all the time. Every second of the transit. And then, she's -- you know, she's actually gone to the right and come back. So that's -- it's not part of the reason why it caught --

BY MR. KARR:

Q. Could a starboard rudder have done anything in this situation?

A. Only thing that would've done is run me into this marsh instead of here.

Q. It -- I'm not a ship operator --
A. Yes, sir.
Q. -- but it wouldn't have broken the suction or -- what would it have -- would it have exacerbated the suction?
A. I think it would've pushed my -- obviously, pushed my quarter more this way. It's a really interesting question. If you would put it right -- if it the suction was so much that -- whether it would've banked more to the right. Because if you notice, the turn to the right -- yeah, clearly, yeah. If we had put any right rudder on it, she would've clearly come more to the right. I feel certain.

UNIDENTIFIED SPEAKER: More to the left. The stern.

MR. THOMAS: Yes, yes, yes. The ship would've turned to the right. Yeah. Towards the marsh here. That never really crossed my mind. Like I said, the only thing that crossed my mind -- because I've been to emergency handling school. I've done it all -- was maybe half a shot or one shot of -- in that port anchor at this point might've helped carry that.

But I was just -- I was just like, the man, the guy -- if I start a fire up there -- I've dropped anchor plenty of times when I've lost power or lost a rudder. And I know it's going to help me kind of end up where I -- I've never done it with power, with it -- because it's just like once you give up that power, you've lost -- you pretty much thrown your hands up. In retrospect, I'm still comfortable with the fact that I did not drop that port

anchor earlier because I think we would've started a fire at seven knots with a chain.

UNIDENTIFIED SPEAKER: Lieutenant [redacted] can I ask a question?

MR. THOMAS: And I don't want to kill anybody up there. What's that?

UNIDENTIFIED SPEAKER: I don't want to usurp this but --

BY MS. [redacted]

Q. Well, just onto that, what else do you think might -- would have happened if say, you had dropped the port rudder like around there --

(Crosstalk)

Q. How do you think the ship would've responded? What do you think the end result would have been?

A. Well, generally, if you drag an anchor -- if I drop this -- the ship is going to go like that. So when we -- I anchored last night in the (indiscernible) anchorage last night at 1 in the morning. Come in there. Soon as I drop that anchor, the ship is going to go like this. And (indiscernible) back like this. I'm going three knots, two knots, one knot. I'm not going seven. So we're comfortable with that. I'm very comfortable with that maneuver. I'm very comfortable with that. Just like holding this and she's going to stop her. We've had a few ships where that's happened.

Q. I'm just saying, like, based on the length of the ship and

everything, if you had even dropped the port anchor in this area --

A. It would've had to have been right in this area to do us any good. In my opinion, that was too early in the evolution. And I thought if I had -- I just wouldn't have done it because of the speed but at that point, yeah, if it had been a perfect world and that bosun had had that guts to do it, I mean, that would've been a hell of an order to drop port anchor.

Q. Do you think it would've stopped the ship or --

A. No, no.

Q. Where would --

A. It would've rested --

Q. -- the ship have headed?

A. It would have gone like this and if we would've kept the power on, we would've dragged it. We probably would've gone like that.

UNIDENTIFIED SPEAKER: But your concern was that seven knots -- when the bosun goes to reset the brake --

MR. THOMAS: Yes.

UNIDENTIFIED SPEAKER: -- you're going to get a brake fire.

MR. THOMAS: Yes. And I didn't want a brake fire.

UNIDENTIFIED SPEAKER: No.

MR. THOMAS: And I didn't want anybody die (indiscernible).

UNIDENTIFIED SPEAKER: (Indiscernible).

MR. THOMAS: We're at the (indiscernible). I mean, there's

just -- there's a lot of humans up there and a lot of steel and I didn't think it was going to -- if it had been the Cooper River Bridge -- and the same thing -- and we've had -- I've lost -- I've been there. And I -- early in my career, Drum Island reach, lost a ship and I was heading straight for a tanker at (indiscernible). Straight for them. The Donzi 1995. Dropped the starboard anchor underway, ran it aground before we hit the tanker. Those are the situations where I would take the chance. If it's the Cooper River Bridge and I got people on the bridge, I'm going to drop -- I'm going to take a chance. I mean, it is what it is. Situation like this, with -- if there had been an ammo ship there, yeah, I would've dropped the anchor earlier.

But in this scenario with the quality of the ship that we had, the quality of the maneuvering characteristics, I never would've expected that ship not to make that turn. Yeah, but if we had dropped this anchor here, she would've come like this and she would've gone like that. With the flood tide, she would've sat back like that. If she would've --

MS. [redacted] If you would have been able to take all (indiscernible) off and go from seven knots to --

MR. THOMAS: Well, what would've happened was --

MS. [redacted] To nothing.

MR. THOMAS: And we do this when we -- you know, you're steering into a tide so as soon as that would've happened, she would've sat -- she would've come up into this marsh and then she

would've fell back on the flood tide. That would have -- so here's the trade. That could've prevented this collision. It could've killed somebody. That would be my trade. And I just felt like -- and I didn't expect that pier to crumble like it did. I'm glad it did. And that we didn't ride up on anything. That it was as old as it was and it kind of just disintegrated underneath us. But that was the trade that I made.

UNIDENTIFIED SPEAKER: But also --

MR. THOMAS: And this was 45 seconds.

UNIDENTIFIED SPEAKER: -- when you drop anchor that early --

MR. THOMAS: You've committed.

UNIDENTIFIED SPEAKER: That early you've committed to the fact I'm not making this turn.

MR. THOMAS: Right. Which is against everything I would've thought.

UNIDENTIFIED SPEAKER: Right.

MR. THOMAS: And so -- yeah.

MS. [redacted] Do you think the ship grounded at all either here or here?

MR. THOMAS: No, no. And none of the surveys show that. Right?

UNIDENTIFIED SPEAKER: Correct.

MR. THOMAS: So I -- which is --

MS. [redacted] I only ask because the docking pilot said he thought that it grounded.

MR. THOMAS: Well, I think it grounded on the side where it hit the concrete. But I don't think it hit the bottom.

MS. [redacted] Right.

MR. THOMAS: And that's part of what kind of dumbfounds me. If there was no strafing on that port quarter where we had hit any -- you know, it's just the -- it was sucking down and it was sucking to the left. That quarter -- just the quarter. The bow was out there fine. The bow was fine. It was that -- that 200 feet of that port quarter was sucking down and to the left.

And that kind of had us going like that instead of driving around. I mean, that's really what I think happened. And -- yeah, I wish I had had a tug and I wish I had a lot of things that I -- you know. And it won't happen again in my career I can tell you that.

MS. [redacted] What's the -- so this ship actually had like a six-inch stern trim. Is that normal, is that --

MR. THOMAS: A one-foot --

MS. [redacted] -- ideal.

MR. THOMAS: It's nice.

MS. [redacted] What's your -- okay.

MR. THOMAS: It's nice. We don't want ships down (indiscernible) they tend to be squirrely. That's a good trim for my purposes.

MS. [redacted] That's what I thought. I just wanted to hear you say it.

MR. THOMAS: Yeah. (Indiscernible) have a question?

MS. [redacted] He had a question, too. Who do you want to -- Mr. Waring?

MR. WARING: Yeah. I just wanted to read to you, Captain Thomas, the 2692 from the master. And just ask you one question about it. This is his description. On approach to Pier Bravo, the pilot ordered port 20 on the rudder and the engine full ahead. The rudder turned but the ship did not. The pilot ordered hard to port 35 degrees. The rudder turned but the ship did not. The pilot ordered full to port, 45 degrees. The rudder turned but the ship did not. The ship proceeded on a straight line to Pier Bravo. Is that an accurate statement?

MR. THOMAS: Yes.

MR. WARING: Thank you. That's all I have.

MS. [redacted] Mr. Jones, we'll open it up to you, sir.

BY MR. JONES:

Q. Sure. Thank you. Thanks for your -- thanks for doing this, Captain Thomas. And I appreciate you taking my questions from afar here. And sorry for regurgitated maybe a little bit. But just -- when you said now, you're taking the -- you take a tug now?

A. No. I'm saying as far as -- yeah, I'm going to have a tug on that starboard bow, absolutely.

Q. Oh, okay. Is it going to be made up?

A. No. These ships are so small -- one thing in my -- one thing

in these -- with these ships, tugs can be a hindrance. They can actually be detrimental to the maneuvering of a ship because they're so big nowadays. So under that scenario, even if a tug had just leaned on the starboard bow, under any scenario, or port -- whatever the scenario is, they're big enough to have some effect on us.

Q. So just underneath the starboard bow --

A. Yes, sir.

(Crosstalk)

A. Yes, sir.

Q. Alongside or just off --

A. Up under the (indiscernible) the starboard bow. I mean, I wouldn't tie --

Q. Hull to hull?

A. Yes, sir.

(Crosstalk)

A. Yes, sir. Just the -- if I'm making five -- four or five, six knots, that -- even up to seven, if she touched that bow, she's going to come -- she's going to have some effect.

Q. Okay, that's -- and that's about the speed you take the turn at with the tug on the starboard bow?

A. Yes, sir. And that would be a tractor tug, too. So that would be a tug that could handle that kind of speed. Our traditional tugs would not be able to handle that speed.

Q. That's why I was curious.

A. And most of our tugs now are that caliber. But as far as the turn by the submarines, these are both hard left turns. And --
Q. Yeah, I just was talking about this one here at 72. But that -- appreciate it. Then going back to -- I know this was early in the interview about the shoaling that the Army Corps has found. Now, are we talking of that shoaling is into the -- into the dredge channel, into the projected depth channel?
A. It's all the way across the entire channel.
Q. Someone had said it's 39, the projected depth. I'm looking at the old chart. Well, it's not an old chart. It was corrected right up in April of this year but it's -- it says 34 feet through -- but is it that -- that must be just an old number then.
A. Well, what I'm telling you is -- and we will send this to you, what have you. Where it says 37 plus 2 which is the project depth. That's what they've committed to maintain. Obviously, you can't maintain it -- 365 days a year. But -- and so it -- there is a variable there.
Q. Now, that chart that Mr. Karr showed you with the track of the Bow Triumph which is reddish --
A. Yes, yep.
Q. -- compared to the other ones. I know you -- he asked if he -- that is the path of the Bow Triumph or --
A. That is -- that would be the -- I'm not exactly sure -- yeah, that -- I mean, I'm not sure if that's the bow or the stern or the actual middle of the ship but yeah.

Q. Right. So it just shows --

MS. [redacted] It's the AIS.

Q. It shows arrows along the track point and the --

A. Yeah.

Q. -- arrow points in the direction of the line.

A. Yep. And what --

Q. Not the heading. It's not the heading is --

A. Right.

Q. -- what I'm trying to say.

A. And one thing I want to -- and I don't know where you all got these tracks. Did you all get these from marine traffic or did you get these from the actual ships?

MS. [redacted] AIS.

MR. THOMAS: So they got these from AIS.

MS. [redacted] Nav (indiscernible).

MR. THOMAS: And --

BY MR. JONES:

Q. Nav center from the Coast Guard.

A. Yeah, so -- and my phone is dead of course. When -- and they're generally very -- you know, relatively accurate. But we're talking about 50 feet, 25 feet, 100 feet. There's going to be a considerable -- there's going to be some inaccuracies but --

Q. So if we just --

A. And some jumpiness but it is what it is.

Q. So if we just deal with these plots in a general purpose --

A. That's right.

(Crosstalk)

A. It's gives you a general idea and I appreciate that. Yeah.

Q. So if we're looking at the chart (indiscernible) and that red track of the Bow Triumph, up by the longitude line -- and this is the one Mike Karr showed you.

A. Yep.

Q. Is that the position you want to be in at that point?

A. Yeah, that to me is a comfortable position. And that's when I feel like this accident started where that quarter started to get sucked in on that shoal right there and she wouldn't --

Q. So let me just -- to clarify. So as we go further down the track where that depth is at 24 -- do you see that number?

A. Yes, yes.

Q. If you drew a line straight up to the Bow Triumph's position --

A. Um-hum.

Q. -- are you in the position you want to be in there?

A. I think we're here. Right? We're here. Right?

UNIDENTIFIED SPEAKER: Let me look.

Q. Just -- and I know maybe you already pointed this out to everybody. I was just trying to get a feel for when you -- when you felt that the start was starting to get sucked in.

A. Yeah. I think that's an accurate position.

UNIDENTIFIED SPEAKER: Rob, straight up from the 24?

MR. JONES: Yeah.

UNIDENTIFIED SPEAKER: Yeah. So right -- he's talking about right there.

MR. THOMAS: Yeah. Which is where the shoaling starts if you look on the chart.

BY MR. JONES:

Q. Do you have left rudder on at that point or not yet?

A. I don't know the exact timing but I think I have midship there.

Q. Okay.

A. And then we're getting ready to make the turn to the left. But I couldn't say that for sure.

Q. Is that the speed you want to start making that turn at whatever you were doing at that point?

A. Yeah, I felt comfortable with that speed. Yes, sir.

Q. Now, if you look at all the other tracks, most of them, the arrows that depict the vessel's position are a lot closer together, almost on top of each other.

A. Um-hum.

Q. And that's usually indicative of a lot slower speed and a lot more data coming to it that -- where your vessel is further apart which indicates a greater speed. Is that something you would agree with or -- you understand what I'm trying to say here?

A. I guess I see what you're saying. I'm not sure --

Q. I mean, when I see a chartlet (ph.) like this and we've done

it before, that close proximity of the vessel silhouette shows me just that they're going a lot slower and they're moving along that track slower so they're getting a lot more position data. But what we can do is we can look at the AIS and (indiscernible) --

A. Yeah, I'm not -- that's a fair question but I think my speed was between six-and-a-half and 7.8 points or something like that. Something in that world. Which I think is a reasonable speed. I'm not sure -- I see what you're saying with the --

Q. Yeah. So -- and again, going from -- without talking to you -- and I know Mike has already asked you this question --

A. Yeah.

Q. -- and I appreciated your answer because you are inside of the other track so we -- when this was first developed -- to me, it looked like the majority of the tracks were outside the turn more towards the center of the channel and all a lot slower. So that's kind of where we were looking at your track saying, well, you're -- and I know when I say a lot further, it's -- we're only talking --

A. Fifty feet.

Q. -- the width of a couple ships.

A. Yeah, yeah.

Q. But at the same time, it's inside and it's faster.

A. I'd have to look at the speed of those ships. If that's -- because I'm looking at -- I'm just looking -- and then, again, I look at -- and this is part of what my concern about these types

of things. I'm looking at that purple line around the turn and you -- the distance between the two is almost an inch, like it's going 30 miles an hour. So I'd have to actually look at their -- even --

Q. Right.

A. You see the variables and all these things. It's just very choppy.

Q. Yeah. And I -- even before, like -- well, what we'll probably do here is time the -- when the turns were given or when the -- like the left order was given and -- I know Mike asked you about that, too. And when you started the -- when you started to feel the stern get sucked in, which would've been the port, which would have made your bow usually get pushed off to starboard. Right? The bow --

A. Yeah.

Q. You're off a little to starboard?

A. Yes.

Q. And did that happen at all or did you bottle it? Did the vessel bottle your parallel (indiscernible) get pulled into the bank?

A. I think it was more of -- a little -- a shade -- I mean, if it was -- you could look at the rate of turn. But it couldn't have been more than one degree to starboard. Maybe a little shot to the right but not much. I mean, it was basically straight. I mean, it wouldn't come off that -- once -- when I'm in that --

when I'm in the channel up there, it just wouldn't -- like I said, it was not my intention to drive over there. I just -- the ship got sucked into that piece and that quarter -- and then the bow, which is in deeper water. Yeah, I agree with you. Should have come back to port but I -- I mean, should have gone up at the starboard but no, it didn't.

Q. And as this started to occur, did the captain say anything?

A. No.

Q. And I think one of the -- and I'm not saying it's a misconception and this is just for the -- maybe for the record. I know there's a lot of people there and I get the difference between -- ships nowadays have to, by law, a requirement, you know, go dock to dock. So you have to draw the lines down the channel.

And we've seen that a lot here during accident investigation and even people say, well, you weren't on the chart. Or you weren't on the line. Well, yeah, we understand the pilot is always -- is going to pick the best path. And it might not be on the line that the ship does as a requirement for their own company and going dock to dock. And I mean, when I used to do it, it was sea buoy to sea buoy and now we're drawing lines all the way up a river.

A. Yes, sir.

Q. So I appreciate -- but I was just wondering if the captain had nothing else to go by, and his line was down the middle of

that range, the D range which I know is broken into, you know, would -- did -- he have commented like after you were -- if you were coming off it, kind of hugging the bend a little bit more. So if he didn't, that's fine.

A. He didn't. And I didn't expect that quarter to be sucked in and grab me like that from the shoaling. But I also -- I actually expected the exact opposite. I expected that flood tide to set me to the right. And it didn't. Because that stern just had me grabbed. And you can see a little bit of shot to the right. But --

Q. Yeah. I mean, it sounded like -- you talked about this. Maybe as the bow started heading out beyond the bend into the deeper water, maybe that's when the flood tide did get it and kept it to the right.

A. Well, one thing I'm noticing about this is you all have got -- you all have a track here. So this track stops before it even gets to the pier and I went through that pier.

Q. Well, that's probably because it's from the antenna on the super structure.

A. So we -- so that's 600 feet or 500 feet, couple hundred feet.

Q. Ish. I mean, I'm just guessing. (Indiscernible) --

A. I'm guessing, too. I'm just curious. So that tells me where it is. Yeah.

Q. So then, the other question was -- so when you gave it the -- you had it on the port 20, did you notice the rudder? Did it

answer to you? Did it go port 20?
A. Yes, sir.
Q. And then, the next order was hard port 35?
A. Yes, sir.
Q. Now, do they have a stop there because it's a Becker rudder? Do -- does -- do they have a warning or something once it goes past 35?
A. Yeah. Well, a lot of ships, they don't want you to use the full Becker, the 45 or -- whatever the design of the ship is, you know, the maximum, maximum under speed like that. You use them at the dock to come off the dock.
Q. Right.
A. There were no alarms. No.
Q. Because I've heard -- once -- if you're at speed and again, you're the pilot. You're a much better ship handler. But we have done Becker rudder accidents before that once you get past that 35, you've got a possibility of stalling the rudder out. I mean, you lose the efficiency of a rudder and it ends up acting like you say, like a poorman's stern thruster.
A. That's what I think part of the problem was. I mean, I think that's part of what -- yeah, I -- and I thought about this in my head a million times, obviously. I don't know whether that stalling, which reduced the speed -- but the suction -- the characteristics of being in that channel that's supposed to be 37 feet being 24 feet, 25 feet, I just think changed the

characteristics of that ship. I'm sorry to -- you know, but --
Q. No, it's all right.
(Crosstalk)
A. You know, I didn't intend to drive over there. That's all I can tell you.
Q. Yeah. No, I'd be interested to see the shoaling diagrams up there in those areas. I thought it would have been more towards the bend, you know, right around the area 72. But up high like that. Up by that -- where that 19 and 24 on the chartlet.
A. No, that's where --
(Crosstalk)
A. I think the accident started way before that -- I mean, if you look at that beacon around -- I mean, around that turn, it's as deep as 33, 34, 33 -- I mean, even where my track is, 31 -- plus the tide. So you can add three feet to that whatever, two feet to that. But it's -- I believe this accident started well before that.
(Crosstalk)
A. And we're talking about 45 seconds.
MR. JONES: Yeah. Well, that's all I have for you, Captain. I appreciate it.
MR. THOMAS: Yes, sir.
MR. CAMERON: Mr. Karr -- Mr. Jones, this is John Cameron with the Pilots. Just to follow up on your question earlier about where the 37 plus 2 comes from, it -- and I know you're not -- you

don’t have the evidence package in front of you but it's listed in the evidence package as 30 USACE surveys and responsibilities and it's plate two on that line item in the evidence package. And it says required depth 37 feet plus 2 allowable over depth. And that notation is right across from your Bravo.

MR. JONES: Yeah. Well, that should be plenty. I mean, 10 feet under the keel. Right?

MR. THOMAS: Yes. But you know -- yeah, I think on that port quarter, we might have had -- we didn't touch anything. But it was clearly a suction on that port quarter in the channel back there -- around where that -- you'll see it. You'll see it when you look at this.

MR. JONES: Yeah -- no, I appreciate it.

MR. THOMAS: Right here. That's where it locked in and it wouldn't let you go anymore. But I don't know.

MR. JONES: Well, I appreciate it. I actually -- I'll bow out of this now but thank you for your time.

MR. THOMAS: Yes, sir.

MR. JONES: Mike, thanks for -- thanks Lieutenant for having me aboard. Good luck with the rest of it.

MR. THOMAS: Thank you, sir.

MR. KARR: Thanks, Rob.

MS. [redacted] Thank you.

MR. KARR: Thanks for joining us. We'll see you later.

MR. JONES: Yep.

MR. WARING: Captain Thomas, one last question from me. Brad Waring again just for the record. Do you consider -- as a professional manner -- been doing this 30 years -- do you consider what's left of Pier Bravo or did you consider Pier Bravo to be a hazard to navigation?

MR. THOMAS: Yes.

MR. WARING: And what's left of it still is?

MR. THOMAS: Yes.

MS. [redacted] Has that been voiced to Joint Base Charleston? Are you aware of any discussions that have been taking place amongst port partners in the past?

MR. CAMERON: I guess I can answer that. John Cameron with the Pilots. We have not been asked about that in any way. I would suggest it would be an appropriate line item in the Harbor Safety Committee agenda perhaps. But it's not currently on the docket for the Harbor Safety Committee.

MR. THOMAS: And my answer to Brad is simply because it -- there's so little margin of error there. There's so little room for margin of error. So if the rudder goes the wrong way or you -- you're going to -- and that -- we deal with this every day.

UNIDENTIFIED SPEAKER: They want the Bow Triumph to pay for the removal of the entire pier which I don't think they're entitled to. The debris cleanup, yes. But they say well, you guys need to remove the entire pier. I'm like, well, that's tens of millions of dollars to do that. Why. Well, it's good for your

client. Oh, are we the only user of the river.

(Crosstalk)

UNIDENTIFIED SPEAKER: Would you excuse me?

MR. THOMAS: Yeah, thank you (indiscernible).

MR. KARR: Yeah, yeah. I'm surprised you're still here.

(Crosstalk)

UNIDENTIFIED SPEAKER: If nothing else, it was nice seeing you. Thanks Crayton. Nice to meet you all. Thank you. Good luck with (indiscernible).

MS. [redacted] Thank you. Oh, I know what I was going to ask. Do you know what the distance is between the end of the pier and the rest of the channel where there should be good water? What's your clearance here?

MR. THOMAS: I mean, I should be able to come by that with 300 feet of clearance. I mean, on this (indiscernible). If this is --

MS. [redacted] Like from the pier here to the other side of the channel.

MR. THOMAS: Well, the channel is going to be -- from here to here is probably 600 feet, 750, something like that. I'm not -- yeah, that's (indiscernible) so yeah, 600, 620 feet, 680 feet.

MS. [redacted] And how long was the Bow Triumph?

MR. THOMAS: Six-hundred. Yeah, I don't think the Bow Triumph could go through there sideways. It could barely go through there sideways if that's what -- yeah. So yeah, if we

caught that anchor, we probably would've -- we would've clipped that with our stern probably if that had been the case.

MS. [redacted] Does anyone else have any questions? Well, I think that concludes the interview.

MR. KARR: And it's --

MS. [redacted] Time is 1508.

MR. KARR: Thank you, Lieutenant [redacted]

(Whereupon, at 3:08 p.m., the interview was concluded.)

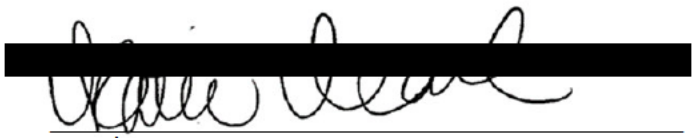
CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF:	*BOW TRIUMPH* VESSEL CRASH INTO WHARF BRAVO PIER NEAR CHARLESTON, SOUTH CAROLINA ON SEPTEMBER 8, 2022 Interview of John Thomas
ACCIDENT NO.:	DCA22FM040
PLACE:	Charleston, South Carolina
DATE:	April 19, 2023

was held according to the record, and that this is the original, complete, true and accurate transcript which has been transcribed to the best of my skill and ability.



Katie Leach
Transcriber