

UNITED STATES OF AMERICA
NATIONAL TRANSPORTATION SAFETY BOARD
OFFICE OF ADMINISTRATIVE LAW JUDGES

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Investigation of:

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MARINE INVESTIGATION
COSCO BUSAN/BRIDGE ALLISION

* Docket No.: DCA-08-MM-004

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Interview of: CAPTAIN JOHN JOSEPH COTA

Pilot Commission Office
Pier 9
San Francisco, California

Friday,
November 16, 2007

BEFORE: TOM ROTH-ROFFY

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1 I N T E R V I E W

2 INVESTIGATOR ROTH-ROFFY: Okay, good afternoon, Captain
3 Cota. My name is Tom Roth-Roffy. I'm the Investigator in Charge
4 of the National Transportation Safety Board's investigation of the
5 incident that occurred on the Cosco Busan on which, on which you
6 were the pilot.

7 Just for the record, go ahead and give us your full
8 name, please.

9 MR. COTA: John Joseph Cota, C-o-t-a.

10 INVESTIGATOR ROTH-ROFFY: And also your business
11 address, mailing address, if you have that.

12 MR. COTA: Well, it'd be better to send to my house --
13 give you my home address.

14 INVESTIGATOR ROTH-ROFFY: Okay, let's take that off the
15 record.

16 MR. COTA: Oh.

17 INVESTIGATOR ROTH-ROFFY: Because it is privacy
18 information.

19 MR. COTA: Oh, okay.

20 INVESTIGATOR ROTH-ROFFY: We'd just have to redact it
21 out of the transcript. Or maybe you could just write it for us.

22 MR. COTA: East -- San Francisco Bar Pilots, East End,
23 Pier 9, San Francisco, and unfortunately I don't remember the ZIP
24 code.

25 UNIDENTIFIED SPEAKER: 94111.

1 MR. COTA: Yeah.

2 INVESTIGATOR ROTH-ROFFY: Okay. Well that will work then
3 as your business address. As I say, I'll go ahead and pass off to
4 Brian Curtis has a prepared list of questions that he'll start
5 with.

6 INTERVIEW OF JOHN JOSEPH COTA

7 BY INVESTIGATOR CURTIS:

8 Q. Good afternoon, Captain.

9 A. Good afternoon.

10 Q. Also, you're here with representation.

11 MR. MEADOWS: Yes. I'm John Meadows, the attorney for
12 Captain Cota.

13 INVESTIGATOR CURTIS: As we ask the questions today, if
14 we could -- the first time around when you ask the question,
15 identify who you are, who you are and who you're with, and then
16 each -- if you have subsequent questions, just identify that --
17 your name again so if this eventually is transcribed the
18 transcriptionist can follow who, who is speaking. That --

19 MR. COTA: Yes.

20 INVESTIGATOR ROTH-ROFFY: -- you, Captain.

21 BY INVESTIGATOR ROTH-ROFFY:

22 Q. We'll get started right off. I'd like to go back and --
23 if you need to take a break or anything, let us know and we can
24 certainly accommodate that.

25 A. Thank you.

1 Q. I'd like to get started with the -- if you'd just give
2 us a run-down beginning that morning previous to getting the
3 vessel, the events and time as you best recall them, and all the
4 detail you can right to the day say until you left the vessel. So
5 if you could just take your time and --

6 A. My -- upon boarding the vessel --

7 Q. Boarding the vessel --

8 INVESTIGATOR ROTH-ROFFY: No. I'm sorry. Could we
9 start actually from when you woke up that morning just to get the,
10 the full picture?

11 MR. COTA: Oh, okay. Trying to -- what time I set the
12 alarm. I got on the ship at six, so I believe I would have set my
13 alarm for either 4 o'clock to 4:15. I get up take a shower, get
14 dressed, get a pilot listing, and get in the car. Drove to --
15 actually I drove to the wrong, the wrong terminal because it had a
16 Cosco name and a Cosco terminal is the one next door. So I
17 actually went to Pier 58 first, and then I talked to the guard and
18 mentioned the ship, and he said Cosco ship just got in. It can't
19 be leaving. So I said, well -- I mentioned the name of the ship,
20 and he said, oh, that the Hangen (ph.) Berth. So I got in my car
21 and drove to the Hangen Berth, which is right next door. I had to
22 call the gate guard to let me in. He picked me up at the
23 longshoremen gate and drove me to the gangway. Went up to the
24 gangway and to the wheelhouse and met the Captain, and there was a
25 mate. I don't know which mate he was. And looked, you know, we

1 looked out the window and we said this is too foggy, you know,
2 we're not going anywhere. We'll just wait and see how things
3 develop. And while we were doing that, I went over and was looking
4 at the radar and the electronic chart, and I wasn't satisfied with
5 the pictures on the radar, and I'd say we spent somewhere between
6 45 minutes and an hour tuning the radars, adjusting the gain and
7 the sea clutter, and there were several vessels moving around the
8 Bay Bridge. I think there were some ferries going up and down the
9 estuary. So I wanted to check the ARPA, so I attempted to plot
10 the vessel just to test the system, and it wouldn't acquire the
11 target. And I couldn't get it to acquire the first two targets.
12 The same target but set two separate times. So I asked the Mate
13 and the Captain to come over and said, you know, am I doing
14 something wrong here? I can't get this thing to acquire the
15 target; and they couldn't either. They, you know, you put -- we
16 put the marker on acquire and we pushed the button, and the -- it
17 would never show a vector or anything. So we did that a number of
18 times, and then later, and I don't remember what time, but I'm
19 sure it's on the traffic tape, the Tug Solana, S-o-l-a-n-a, was
20 pushing two barges, and he had just come through the Gulf of
21 Telspan of the Oakland Bridge. So I could see him on the radar,
22 and we attempted to plot him, the Mate, myself, and I forget if
23 the Captain was -- he was always in the wheelhouse, but I forget
24 if he was helping us on this particular part. And we couldn't get
25 it to acquire the target until it got to a little bit before the,

1 the entrance to the estuary. And then it acquired it and it had a
2 vector and it gave all the information, course, speed, and the
3 rest of it. And then another ferry came down the estuary, and we
4 plotted him, and it tracked him, that vessel. So it appeared to
5 me that it was now working. I don't know if, if they did, I don't
6 remember, you know, they didn't take the radar apart or I don't
7 know what happened or if they did anything to the radar, but it
8 started, it acquired the -- it started, the ARPA was starting to
9 work. So about that time, the visibility was lifting, and I could
10 see across the estuary, and the Alameda side is pretty flat so
11 it's kind of hard to judge the distance, but I could see -- I
12 couldn't just see the bank. I could see somewhat on the land. I
13 estimated at least a quarter of a mile. And when the Solano was
14 coming up the estuary, once we had plotted him, when I saw him
15 visually, I checked him on the radar, and he was over a quarter of
16 a mile. I don't remember the exact distance, but it was more than
17 a quarter of a mile. And I could see -- we were tied up at the
18 terminal, and I could see into the terminal yard for some
19 distance. So the visibility around the vessel was I would say at
20 least a quarter mile, but I don't think it was a half a mile, you
21 know, that's a guess. So at that point, I asked the Captain, are
22 you, are you satisfied with the conditions to get underway? You
23 know, are you -- do you want to wait or do you want to go or --
24 and he said, well, looks like -- well, I'd better not say that,
25 but he agreed to say -- I'm not sure -- his English isn't very

1 good, but he agreed that it looked safe to sail. So I had
2 explained to him I had one tugboat and a bow thruster, and we were
3 at the second bridge into the end of the estuary. So we pulled
4 the ship out into the middle of the estuary, and then I took the
5 assist tug that had been on the port corridor, it's a tractor tug
6 called the Revolution, and I put him in the center -- aft as
7 insurance in case I needed some help getting through the channel.

8 And then we started down the estuary, and there was a
9 dredge called the Nord. It was working on the port side of the
10 channel, and I could see him. I didn't measure the distance,
11 because I didn't -- but he was clearly visible and the -- and a
12 barge next to him. And we continued out the estuary, and I could
13 see as we were outside the estuary, I could see Buoys 6 and 4 on
14 the port side, and the green buoy -- I mean there's a green day
15 marker and a kind of like a breakwater. It's a sheaf of material
16 where they shove in the old Naval Supply Center to make it -- to
17 keep the mud from coming into the channel. So going down there, I
18 could see all of that and the green light, you know, the beacons,
19 navigational aids. And we kept going, you know, still in the
20 channel and -- in the middle of the channel, I believe. And it
21 was flooding, so I was going to -- I kept going up the channel,
22 and I stayed high towards the green buoy number one because
23 everything would be setting into the port, but I didn't see the
24 green buoy and I didn't see number two buoy. But number two buoy,
25 we were turning at that time, so I wasn't really looking for it.

1 I knew, I knew where I was relative to the number one buoy. And
2 what I have used to go through the Bay Bridge in the fog before
3 electronic charts and everything is .33 tenths of a mile off of
4 the light on the southern end of Yerba Buena Island. So I had the
5 variable range ring set on that. And what I usually -- what you
6 do is put the ring on there, and it just keeps the ring on the
7 island as you go through the bridge, and that brings you to the
8 center of the bridge.

9 UNIDENTIFIED SPEAKER: John, would it help if I got the
10 chart that's up in the Conference Room?

11 MR. COTA: Well, maybe it would help them. I --

12 UNIDENTIFIED SPEAKER: Yeah, we do have a chart.

13 MR. COTA: I mean I know it, but -- so I forget what the
14 rudder order I gave as we started our turn.

15 Oh, I need to back up here for a minute. Before we --
16 well, while we were working with the radars, I was looking at the
17 electronic chart, and the symbols on the chart, on the electronic
18 chart didn't look similar to me to the symbols that are on paper
19 charts. So I asked the Captain, where's the center of Delta Echo
20 span on this electronic chart? So he pointed to a position on the
21 chart, and it had two red triangles on either side of the bridge.
22 So I said, well, what are these? And he said, oh, those are to
23 mark the lengths for the center of the span. Okay. So I just
24 wanted to say that we discussed that before we left.

25 So then -- I'll get back to when I was making my turn

1 off the island. As I made the turn and headed towards the bridge,
2 the radar picture of the bridge got distorted. It got -- wider.
3 The bridge, the bridge got wider. The RACON never appeared. And
4 I couldn't see the bridge piers or the buoys south of the span. I
5 couldn't picking it up on the radar. So at that point, I figured
6 that the electronic chart would be more accurate because the radar
7 was -- both radars were not -- I wasn't, I wasn't comfortable with
8 the display. So when I went to the electronic chart, once again I
9 asked the Captain, I said, is this center of the bridge the point
10 that he had indicated earlier, and he said that's the center.
11 Okay. So I'm making my approach to the -- like I say, I'm not
12 sure what rudder commands I was giving. I'm sure they will all
13 come out on the machine, but somewhere along this as we're
14 transversing this section, traffic called and said we have your
15 heading as 235, what is your intention? And I'm standing at the
16 radar, and the radar and the electronic chart are right next to
17 each other, and I had the radio in my hand. I said my heading
18 flasher is on 280. I said I'm showing -- I forget what I said,
19 showing me clearing the bridge or hitting the center, but I was
20 nowhere near 235. I mean it's not even a course you use to get to
21 the bridge. I never go left of 250. When I leave the Bar Channel
22 generally, I steer towards the tower or somewhere between 250 and
23 260, depending on the current. So I mean that really stunned me.
24 I was really confused by that. I couldn't understand how they
25 could have me at 235 and I had me at 280. And I forget it, it was

1 at that point or shortly after that I gave -- oh, on the
2 electronic chart, the heading flasher showed that I had already
3 cleared what the Captain had indicated was the center of the
4 bridge. The heading flasher was to the right of it and we were
5 still coming right. But when they said they had me going 235, I
6 don't know how many minutes went between then and I ordered full
7 ahead and hard starboard to increase it. Although I -- from the
8 electronic chart, it looked to me like I was already passed the
9 center and I was going to be going -- I was a little concerned
10 about going too far to the starboard.

11 And then, shortly after that, the bridge appeared, you
12 know, appeared just slightly off the port bow, and then the ship
13 didn't go bang or shift or I didn't feel any movement on the ship,
14 but I went out on the port bridge wing as we were going down the
15 side of the pier, and I could see, you know, the fendering getting
16 knocked off. So I put the ship hard port to lift the stern away
17 from the pier. I didn't want the stern to keep swinging and do
18 more damage, so I put it hard port, and then I called traffic on
19 the radio and said I just hit the Delta Echo span, and I'm going
20 to anchor at seven. So from there, I used various courses and
21 speeds to get into the anchor at seven, and then I anchored the
22 ship. And then after I anchored the ship, I looked over to the
23 side, and then I saw oil. I -- to be perfectly honest with you, I
24 didn't realize I had put a hole in the ship until we were
25 anchored, I anchored, and then you could see the oil running down

1 the side of the ship. So I called traffic again, and I think I
2 called them on a telephone this time. But they have a tape of the
3 telephone conversation too. So I called them, and I said there's
4 oil in the water, I'm letting you know that, you know, there's
5 oil, there's a sheen in the water, and I, I believe the traffic
6 guy said, yeah, we just got a report from a ferry boat about oil
7 in the water, and the pilot boat was coming alongside about that
8 time, and I believe Captain McIssac called somebody in the Coast
9 Guard and, and reported that they could see the oil coming out of
10 the ship. He said it was -- way he described it to me he said it
11 was as if you had a five-gallon bucket on your shoulder and you
12 tipped it over and it, you know, it was pouring out like that. It
13 wasn't shooting out 50 feet. It was pouring out. And sometime
14 after we hit the bridge for that short -- you know, I don't
15 remember what time, but, you know, I asked the Captain, I said did
16 you sound, you know, start sending tanks before I even realized
17 that we had a hole because I knew it was part of the procedure.
18 So he said, okay, they're going to start -- you know, they -- he
19 went off on the phone, and I guess they started sending tanks.
20 And the pilot boat came alongside and Captain Hoburg, Captain
21 Coney, which is like the -- well maybe you've talked to these guys
22 already -- and Captain McIssac came up and to, to the bridge.
23 Captain Hoburg immediately had a list, which I think he got from
24 the ship, about who to contact about oil spills, and he started
25 calling all -- the whole time I was on the bridge until I left the

1 ship, Captain Hoburg was on the phone calling people reporting the
2 spill. I'm not sure who exactly he called, but he, he was just
3 constantly making phone calls. And Captain Coney (ph.) and I went
4 over to the side of the wheelhouse, and we did one of these little
5 alcohol, portable alcohol testing that they -- they carry. So I
6 took the test. He witnessed it. He timed it. Came out negative.
7 I brought it to the interview the other day, and nobody could care
8 less. Nobody was interested in it. Didn't take it. Didn't want
9 it. So I, I did it because we had been told to do it. But after
10 I did that, Captain McIssac recommended that we get, you know,
11 that Captain Hoburg relieve me and we go to the Pilot Office, and
12 they had already called drug and alcohol company that we have on
13 contract to head to the pilot office. So I -- oh, I checked with
14 the -- I got off the ship at 9:45, and we went directly to the
15 Pilot Office, and the drug and alcohol guy was already there. So
16 I did the drug and alcohol test there, and he gave me the printout
17 of the alcohol test because it's right there, and then I gave it
18 to Hopper, Mr. Hopper?

19 UNIDENTIFIED SPEAKER: Yes.

20 UNIDENTIFIED SPEAKER: Lieutenant Hopper.

21 MR. COTA: I gave that to him, and then of course the
22 drug test takes another day or so, but I, I'm assuming somebody
23 forwarded it to you. We got a copy, and, you know, that was
24 clean. So I'm trying to think. Yeah, I -- oh, oh, Lieutenant
25 Hopper and some other people were there, and they wanted to

1 interview me, and I respectfully declined because I didn't have a
2 lawyer, and I like to eat. So I said, I'm not going to tell you
3 anything at all right now. You tell me what time you want me to
4 be in Alameda tomorrow morning, and we'll be there, but I said I
5 want to meet my lawyer before we do this.

6 So after that, then I went to Captain Meadows' office
7 and we did our report. And I don't know if you want to go on from
8 there.

9 BY INVESTIGATOR CURTIS:

10 Q. That's good, Captain. So the significance of the .33
11 here off the southern tip of Yerba Buena, that would put you a --

12 A. If you --

13 Q. -- distance between the --

14 A. Yeah. If you, if you -- if you can keep it -- well, you
15 don't just keep it off of here. You kept it off along the
16 shoreline. You know, you just keep the ring here, and that will
17 bring you through the bridge, you know, to the center of the
18 bridge or very close to the center, the thing on which the engine
19 is. But and it works both ways. When you're inbound, you do it
20 on this side. And like I say, I got into the point here where I
21 made my turn and I was right where I wanted to be when, when I
22 started to turn, but that's when I left the radar and went to the
23 electronic chart, and the electronic chart had a variable range --
24 I didn't know or couldn't find it or didn't use it. And I had the
25 location that the Captain had pointed was the center of the

1 bridge. So at that point I just said, okay, well, I'm aimed for
2 the center of the bridge. I know where I should be when I start
3 my turn. Here's the center of the bridge. I'm going here. And,
4 and I came along, you know, I, I even carried the -- like I say,
5 then traffic called, and that, that 235, you know, that really --
6 I still can't imagine where that came from. And, you know, unless
7 the, the guy turned the wrong way or something, but and then I
8 relied on the electronic chart through there. But, you know, as
9 it turned out after we anchored and were going through all this,
10 what the Captain had marked as the center of the span was the
11 tower.

12 Q. So he, he -- vessel traffic, I believe, indicated to you
13 that you were heading 235?

14 A. 235, I believe that's what they said.

15 Q. You responded 280. What were you basing your --

16 A. I was standing in front of the radar and my heading
17 flasher was on 280, and I was hard right full ahead. I was still
18 coming right. So I thought, you know, I mean I was more confused
19 by their statement, you know, I -- you'll hear it on the tape or
20 you already have. I said I, I'm steering 280. I, I don't know
21 how you're getting 235. Whatever. I mean things looked correct
22 to me, and I was, you know, and I, and I was continuing to come
23 right. So I figured I'm even opening it wider. So but, you know,
24 I was given incorrect information on what I was aiming for.

25 Q. On his ECDIS, he identified you say two red marks or

1 what were that that you identified in the ECDIS that he believed
2 were the --

3 A. He told me they were the lights on the marking the --
4 center. You know there's lights marking the center of the span.
5 But I had no chart that I've ever dealt with have I seen red
6 triangles indicating day mark or something. You know, I've never
7 seen it indicate a light. But there's an ECDIS system -- they're
8 not, as far as I know, there are no common -- they haven't
9 made common the symbols on the electronic chart, and certainly it
10 isn't the same as the paper chart. I mean that electronic one,
11 you've probably seen it, but if you look at it, it doesn't -- the
12 symbols aren't the same as they are on this, and that's how I got
13 misled, and the RACON never showed up. I don't know if on the
14 Notice to Mariners, I didn't see that the RACON was out or wasn't
15 functioning but, you know, from the time we were in the bar
16 channel, I never -- the RACON never appeared, and that's why I
17 said that's when the whole picture of the bridge started to
18 deteriorate.

19 Q. The RACON would have been indicated --

20 A. The center. The RACON is marking the center.

21 Q. But where would it show up? On the radar?

22 A. On the radar, yeah. It shows as a strike or I forget
23 what the signal is. It's like --

24 Q. And in --

25 A. -- dash, dash -- signals you know like an A or a B or

1 something, you know. It's the Morris Code signal, and it shows
2 up. I mean it's a big -- you can't miss it.

3 Q. At any point, did it show up on the radar?

4 A. I didn't see it. I wasn't looking for it when we were
5 at the dock. I mean, you know, I figured when I get close to the
6 bridge then I'll worry about that. I was concerned with the area
7 from here up, you know, in through here, that there was no
8 traffic, and, you know, that everything looked right. But I
9 never, like I said here, I never did see -- the RACON never
10 appeared on the radar, on either radar that I saw. Because I was
11 going back and forth between the radars as well as the electronic
12 chart. Because when the one, when the -- I forget which radar it
13 was that I was looking at when the bridge -- the picture of the
14 bridge deteriorated. I went to the other radar to see if maybe I
15 could see the RACON or the buoy, you know, the buoy marking the
16 tower. And on a lot of radars, you can actually see the tower.
17 The tower will show up. And I couldn't see anything on either
18 radar. So that's why I shifted to the electronic chart. I
19 figured, well he has no clutter or you know there's not
20 interference like on a radar. So then I just made my turn based
21 on that, and what he had indicated was the center. I was still,
22 when I said I was 280, the heading flasher was already to the
23 starboard of what he had told me was the center of the bridge,
24 which was in actual fact the tower. That's why we didn't hit it
25 stem on. You know, the bow had swung past it. But, you know, so

1 there was -- best I can say is he gave me incorrect information on
2 the chart, you know, you know, for where the center of the bridge
3 was.

4 Q. Could we just go back and --

5 A. Yes.

6 Q. -- summarize, summarize briefly verbally because you
7 know, we can't hear on the tape, but --

8 A. Oh.

9 Q. -- the point at which you went from visual to radar and
10 then the point went from radar onto ECDIS.

11 A. Oh, I was on the radar the whole time.

12 Q. From leaving the dock?

13 A. Yeah. But I did go out on the bridge wing as we went
14 past the markers to see, you know. And I could see, you could --
15 on the chart, you -- I could see this light and this whole -- it
16 was kind of like a breakwater thing.

17 Q. Could you identify those points, please?

18 A. Let's see, light five.

19 Q. Okay. So you were on at that time radar --

20 A. I -- just -- I was using the radar constantly. I even
21 -- I could see the dock, and when I leaned off the ship, I could
22 see both sides of the estuary when I was in the middle of the
23 estuary. I could still see -- I -- the visibility was still
24 sufficient, I believe.

25 Q. Okay.

1 A. So, but I did -- I was standing at the radar the entire
2 time except for when I -- when we passed this dredge, Nord was
3 somewhere in here approximately, you know, around light eight,
4 somewhere between light eight and -- entrance of the channel. And
5 as I passed him, I went out on the port bridge wing to, you know,
6 see if I could visually verify he was there. And then when we
7 went by -- I went back to the radar, and then when we passed
8 these, I went out and looked at these. But I'd say from past
9 light five, I was relying on the radar. I used the radar as my
10 main source of information up until we got close to -- well, we
11 got up by buoy number one, then we -- I got my distance off the
12 island, and I gave a port rudder command, which I don't remember
13 what it was, but -- and then at that point, I knew I was here, you
14 know, three three off the island. So I was, you know, start
15 coming right, and that's, you know, as you get a little further
16 you come right, but that's when the picture deteriorated. So I
17 shifted to the ECDIS somewhere around or maybe just west of buoy
18 number one.

19 Q. Okay. But at that point, you had your, your VRM on the
20 southern end of the --

21 A. Yeah, I was, yeah. I was three, three off of them.

22 Q. Okay.

23 A. I was where I wanted to be. I was comfortable. I mean
24 that's where I -- that's how I go through the bridge. I mean I've
25 been doing it, you know, thousands of times. And so I was

1 satisfied with my position as I started the turn, and then like I
2 say, I -- the radar I didn't --

3 Q. Did you ever see the .33 open up to a greater distance?

4 Or --

5 A. No. I started it at 33, see, then I, then I -- the
6 picture of the bridge got so bad. I mean I was amazed. It's
7 something that I've never seen a radar do this. The bridge became
8 about that thick on the radar. I mean it's usually a fine line.

9 Q. I'm sorry. Again, I'd like to for the record --

10 A. I'm sorry.

11 Q. About three-quarters --

12 A. Two inches maybe or inch and a half. Much bigger than
13 it appears usually. To me all of a sudden the picture went to
14 hell. So I went to the ECDIS, which I figured would be more
15 reliable, and then I navigated it on the ECDIS up until the time
16 we hit the bridge.

17 Q. Did your visibility decline since you left the dock?

18 A. After -- well, yeah. When we -- the buoy, I never saw
19 buoy one. When we got out of gear, the visibility had decreased.

20 Q. What would you estimate at buoy one would you estimate
21 the buoy had decreased to?

22 A. I have no frame of reference. I could still see the bow
23 of the ship. Maybe that's 8 or 9 hundred feet, and some -- it's
24 impossible to tell in the fog. I mean there is something up
25 ahead, but I can't, you know, I had nothing to measure it with.

1 But I mean it's not like a long time in the fog. I mean you can
2 see the front window and that it. But I could still see the bow
3 of the ship and, you know, and the foremast.

4 Q. Were there lookouts?

5 A. Yes.

6 Q. On, on the bow?

7 A. Yes.

8 Q. Who were they?

9 A. Seamen. I don't know if there was a mate up there, but
10 I -- that's another thing I -- before we left, and I -- oh, I
11 didn't bring -- I gave one to Captain or Lieutenant Topper this
12 Master Pilot Exchange Card that we have, and I gave him soon as I
13 board the ship, I give them this and -- well, I don't know if we
14 have -- I have one in my car that is a bit away, but it's, you
15 know, it explains the whole Master Pilot Exchange. I can't really
16 explain it. It's a four-page document, so I couldn't do it
17 justice trying to explain it. If you wanted to take a break, I
18 can go get one.

19 UNIDENTIFIED SPEAKER: That one page, that's the pilot
20 card.

21 MR. COTA: That's the pilot card. It's something the
22 pilots -- print out.

23 BY INVESTIGATOR CURTIS:

24 Q. Were there any discrepancies during the Master Pilot
25 Exchange with the Captain -- problems or anything?

1 A. Well, I was completely dissatisfied with the radar
2 picture when I boarded at six o'clock, when the fog was -- you
3 know, we weren't going anywhere anyway, so I said well let's check
4 out this equipment. And, like I said, we spent I'd say between 45
5 minutes and an hour between the two radars and me asking the
6 Captain about the center of the bridge and, and then this Master
7 Pilot Exchange Card asks -- there's a whole series of questions,
8 you know, have any problems with the ship -- you know, and he
9 didn't relate any problems of any sort, and everything was
10 working.

11 Q. Propulsion, steering.

12 A. Every -- well, it asks all that, and he read it and, you
13 know, I -- of course I don't know if he understood what he was
14 reading.

15 MR. MEADOWS: This is Meadows. The, the Handout the
16 Captain is referring to specifies that English, fluent English
17 must be spoken on the bridge. English only, English only.

18 MR. COTA: I really would like to get one of these for
19 you.

20 UNIDENTIFIED SPEAKER: Lieutenant Hopper has one.

21 MR. COTA: Yeah, I know, but he's not here.

22 INVESTIGATOR ROTH-ROFFY: Not -- in here?

23 (Simultaneous comments.)

24 MR. COTA: Because it's pretty extensive, and, and I
25 can't do it justice on the phone. I think you really have to have

1 it to appreciate all the information that we ask for, and, you
2 know, it also has a section that if you have any questions about
3 anything about the route or anything, you know, ask the pilot,
4 and --

5 INVESTIGATOR ROTH-ROFFY: Okay. This is Tom Roth-Roffy.

6 MR. COTA: Yes.

7 INVESTIGATOR ROTH-ROFFY: If it's relevant to your
8 description of what happened, then maybe we should get a copy, but
9 if it's, if it's not, if it's something we can look at later, then
10 if you could maybe provide a copy.

11 MR. COTA: Oh, yeah, I got one in my car.

12 INVESTIGATOR ROTH-ROFFY: Yeah, but if, if you feel that
13 you --

14 MR. COTA: -- finish or whatever, but --

15 INVESTIGATOR ROTH-ROFFY: You feel you need to, to refer
16 to it now to describe --

17 MR. COTA: Well, I --

18 INVESTIGATOR ROTH-ROFFY: -- elements of the exchange.

19 MR. COTA: -- I'd feel a little better but just because
20 it has quite a few items on there to, you know, explain and
21 discuss, both, you know. So if he has any questions or any
22 problems or anything it mentions in it or any problems with the
23 ship, you know, that he has to let me know and, and things like
24 that.

25 INVESTIGATOR ROTH-ROFFY: Again, I think we can probably

1 --

2 (Simultaneous comments.)

3 MR. COTA: -- I don't want to sell myself short on this,
4 but --

5 INVESTIGATOR ROTH-ROFFY: Sure. If it, if there's
6 something on --

7 MR. COTA: -- because it's an important thing, the
8 Master Pilot Exchange, and this is probably the most extensive one
9 I've ever had.

10 INVESTIGATOR ROTH-ROFFY: Okay.

11 MR. COTA: We spent so much time working on the --

12 INVESTIGATOR ROTH-ROFFY: Is there --

13 MR. COTA: -- equipment.

14 INVESTIGATOR ROTH-ROFFY: Was there anything on that
15 particular Master Pilot Exchange that you needed to point out to
16 us that is out of the ordinary?

17 MR. COTA: There is.

18 INVESTIGATOR ROTH-ROFFY: Okay. So you have been given
19 a copy of the, the document now.

20 MR. COTA: Yeah. If you want me to read it. You want
21 me to -- kind of lengthy. You want me to read it?

22 INVESTIGATOR ROTH-ROFFY: Not necessarily. Unless,
23 unless there's something --

24 MR. COTA: Well --

25 INVESTIGATOR ROTH-ROFFY: -- on it that you'd like to

1 point out that's of particular interest.

2 MR. COTA: Well, I will read parts of it. It says we
3 believe that the Master Pilot Information Exchange plays an
4 important role in linking your vessel's navigation resources to
5 those of the pilot. The exchange enhances the level of trust,
6 sets transit expectations and eliminates assumptions that either
7 the Master or the Pilot is aware of, a certain fact or situation.
8 By taking the time to give each other the necessary information,
9 the safety of our transit will be enhanced. And on the inside,
10 page 2, it says I'm the San Francisco Bar Pilot assigned to your
11 vessel until we are made fast to a dock, secured at anchor or I am
12 relieved or disembarked at the offshore pilots' station. Please
13 provide me with the following: (1) Vessel deficiencies. Advise me
14 of any systems not working properly. (2) Pilot Information Card.
15 (3) Drafts fore and aft, measured in feet. Freshwater drafts, if
16 applicable. (4) Air draft measured in feet, corrected for trim.
17 (5) Location of navigation equipment. (6) Type of propulsion.
18 Restricted number of air starts on diesels. Propeller type and
19 rotation. (7) Engine notice requirements. (8) Thruster
20 status/horsepower, if equipped. (9) -- (9) Maneuvering speeds of
21 vessel. (10) Known, known error, errors in the gyrocompass. (11)
22 Any deficiencies or unusual characteristics of the navigation or
23 ship control systems. (12) Necessary notice for crew call-out.
24 And then it -- next section says, Please set the ship's equipment
25 in the following -- set up the ship's equipment in the following

1 manner: VHF Radios: Channel 13 and 14. Radar: The ship's best
2 radar set in NORTH UP mode, range 3 miles. And I, and I
3 personally have written in centered because I learned -- I use the
4 radar in the center. A lot of foreigners use it offset, and I'm
5 just more comfortable with it in the center. So I would prefer
6 that they set it in the center. The next section is just about
7 the pilot ladder. And then page 3 says, safety first. The
8 schedule is flexible, the ship is not. Information for the
9 Captain and Bridge Officers: Ensure that your AIS destination is
10 set to -- and I don't know if he did that or didn't do that.
11 Captain must immediately -- must be immediately available at all
12 times. An officer fluent in English must be on the bridge at all
13 times. All orders will be given and acknowledged in English. The
14 helm must be manned with a qualified quartermaster. At all times,
15 in shore of the demarcation line, you are required to have a
16 proper lookout posted and both anchors sufficiently manned, ready
17 for immediate controlled release. Please have direct
18 communication with the foredeck. The next one, inform me of any
19 changes made to the draft/trim or operating cranes. After that it
20 says for all transits we may, as applicable, discuss/review the
21 following: intended route plan, anticipated traffic, tides,
22 currents and weather, regulated navigation areas, speed limits,
23 minimum under keel/air draft clearances, tank vessel escort
24 regulations, berthing/unberthing plan. And the last paragraph on
25 this passage is, if at any time you or a member of your crew has a

1 question about the navigation or safety of the vessel, please
2 communicate your concerns or questions to me immediately. If
3 there are any requirements that you do not understand, please ask
4 so that I may explain further to ensure that they are all complied
5 with. And then on the back page it just is Recommendations for
6 Vessels at Anchor. It tells them to stand by on Channel 13 and 14
7 and be prepared to use your engines to maintain safe anchor
8 position, particularly when your vessel swings. And then it just
9 gives pilots on Channel 10, and then it gives distances to
10 different locations on the Bay, so.

11 BY INVESTIGATOR CURTIS:

12 Q. Once you did the adjustments to the radar, did the
13 Captain concur that you were good to go at --

14 A. Yes. I asked him, before we left, I asked him, are you
15 comfortable departing.

16 Q. Did you feel that the Captain's English was adequate to
17 have a Master Pilot's Exchange? I mean did -- do you believe he
18 was understanding all of your conversation your understanding?

19 A. I believe so. He didn't, he didn't look confused or --
20 but, believe me, dealing with foreigners, and I sailed with
21 foreigners a number of years, a lot of them just have a tendency
22 to smile and nod, you know. So he didn't ask me any questions, so
23 I assumed that he understood what he was reading.

24 Q. What about underway. Did your orders to the helmsman or
25 the mate or the captain, were there any problems with

1 communications, understanding your orders -- to them?

2 A. Not that I know of. Although I'm not sure about the
3 rudder command because I had my head in the radar, and when I gave
4 like port 20 or starboard, you know, hard starboard, I was more
5 interested in the behavior of the vessel, where the heading
6 flasher was going to relative to the bridge then the actual rudder
7 -- indicator. You know, so I -- and I always give courses in
8 single digit numbers like 2, 3. I never say 235 or 355. It's
9 always 3 5 5, you know, 1 2 0.

10 Q. Did the helmsman --

11 A. And the helmsman repeated the courses, as I remember, as
12 I recall.

13 Q. Aside from the visibility, what was the weather that
14 morning?

15 A. Calm.

16 Q. So just briefly did you encounter any problems with
17 steering, propulsion of any engineering systems?

18 A. Not that I'm aware of, but I, you know, hopefully the
19 bell book and engine room log and all those things will tell us
20 that, but I, you know, I say full ahead whether I get it, you
21 know, a guy pushes a knob up there, but somebody in the engine
22 room has to do something too, you know. So you know I, I say full
23 ahead or half a stern or whatever, and what, what goes on from
24 there, is out of my control. Whether they actually do it, you
25 know, I just have to assume they do it unless, you know, the

1 engine dies or just something obvious happens. But whether, when
2 I said full ahead it went up to full ahead, and there's lots of
3 ships that work up slowly or I've had a number of occasions where
4 some ships you order full ahead and the engineer doesn't think the
5 engine is warm enough, and he won't give you -- you don't get full
6 ahead. You'll get what he wants to give you. So that's what I'm
7 hoping that somebody got on and checked all this stuff.

8 Q. How about that hard port? You checked your rudder
9 indicator to find out whether he followed through?

10 A. No. I gave hard -- I was looking at the -- I was out --
11 I was concerned what was going to happen to the rest of the
12 bridge. And I also forgot to mention this. That after we
13 undocked -- I think I forgot to mention this. I shifted the tug
14 from the port corridor to the center lead aft as insurance in case
15 I needed any help through the channel or through the bridge.

16 Q. So he was --

17 A. He was attached to the ship. And unfortunately when
18 things got ugly, I forgot about it. You know, when the bridge
19 appeared in front of me, I gave orders and I'm sure you talked to
20 him or you will talk to him, and I, you know, I'm -- I forgot
21 about him, you know, so I'm glad he -- I'm assuming he didn't get
22 smashed up or hurt or anything, but I --

23 Q. Did he impose any maneuvering restrictions on you or
24 didn't you --

25 A. Oh, no, they, they -- we -- they do this all -- they

1 always coming inbound we attach them on the other side of the
2 bridge. We don't use -- it's not common to use them going out
3 through the -- usually you get off the dock and you let them go
4 because, you know, it's not that hard to steer out of here, but
5 because it was foggy, and I just figured it's extra insurance.
6 Can't hurt. I've got 7,000 horsepower back there.

7 Q. Did he ever communicate to you that possibly --

8 A. No. He never mentioned anything. But I mean that's not
9 his -- his job is to run his boat and be ready to do something if
10 I --

11 Q. Yeah, radars, what -- what did they have for radars?
12 Which one were you using, and what scale were you on?

13 A. I was using both of them.

14 Q. Both of them being? Describe the type radar.

15 A. I don't remember the make, the company, but 3-centimeter
16 and 10-centimeter, I'm assuming.

17 Q. Do you recall the range you were on as you maneuvered by
18 your .33 area there?

19 A. Oh, I don't -- I think it was a mile and a half, but I'm
20 not positive. I doubt if it was on three -- although I said in
21 this card I have it set at three, but that's usually when we're
22 going from sea in. But in the Bay, I, I can't remember, but I, I
23 doubt that I had it on three miles going into the Bar Channel just
24 -- you know, why -- I mean -- the other scale shows everything
25 better, so. I don't know if there's any record of that or where

1 you can find that out, but I don't remember what scale it was on,
2 but.

3 Q. Okay, the current that --

4 A. No, didn't --

5 (Simultaneous comments.)

6 A. I didn't feel any set from it, and it wasn't, you know,
7 the height of the current. I don't -- I think it was around a
8 knot or a little over a knot or something, which if it was ebbing,
9 I wouldn't have even -- I wouldn't have -- because it's too, you
10 know, you're setting down, I mean everything's wrong. The flood
11 at least is holding you off the bridge, and, and I definitely
12 considered that in my decision to sail. If it was ebbing, I would
13 not have sailed.

14 Q. Any, any of the traffic around you that you had to
15 maneuver around at the time?

16 A. No. No, I waited until everything was clear on the
17 radar. I didn't want to have to worry about traffic, you know,
18 meeting other people or having to make course changes, do
19 something radical in the Bar Channel.

20 MR. MEADOWS: May I ask another question of the Captain?

21 INVESTIGATOR ROTH-ROFFY: Yes, Mr. Meadows, yes.

22 MR. MEADOWS: Meadows, yes.

23 Do you ever encounter problems with getting a maximum
24 rudder angle when you're ordering a hard over?

25 MR. COTA: Yes. Quite common on foreign ships that when

1 you ask for hard starboard or hard port, many ships will only give
2 you 30 degrees rudder instead of 35. And it seems to be different
3 captains having different policies. I don't -- think the rudder
4 is going to fall off or something, but I -- whenever I notice
5 that, I severely chastised them and remind them that hard over is
6 35 degrees, not 30. So that's another thing. I don't know if I
7 got 35 degrees or I got 30, you know. And hopefully that shows up
8 on some equipment.

9 BY INVESTIGATOR CURTIS:

10 Q. Back to the ECDIS, did you get a chance -- did you look
11 at the ECDIS previous to departing, the lines that they had on the
12 ECDIS as, as -- approach to the bridge?

13 A. They had no -- there was no chart line. No chart line
14 on the ECDIS I found.

15 Q. The other members, the Captain, the -- I guess it's a
16 third mate on watch.

17 A. Yeah.

18 Q. Were they as well in the radars? What were they doing
19 during this time as you approached the bridge? Do you recall?

20 A. No. You know, I know they were around there somewhere,
21 but I was paying attention to what I was doing. I wasn't, you
22 know, I know they were in the wheelhouse, but where I don't
23 recall, you know, where their positions were.

24 Q. Was the -- it was the Captain and the third mate on --

25 A. I don't know. It was a mate.

1 Q. Okay.

2 A. I didn't -- he didn't have any stripes on or you
3 couldn't tell. He just had a pair of coveralls on, so it could
4 have been the chief mate, third mate. I don't know.

5 Q. Back to the lookouts on the bows men, did, did your --
6 did you have communications with them? And, if so, what did they,
7 they say anything to you or --

8 A. I didn't. The Captain did. You know, they use their
9 own like a UHF radio.

10 Q. Okay.

11 A. For communication with the crew. And I believe just
12 about the same time I saw the bridge or maybe a few seconds
13 before I saw the bridge, I think the bow lookout called the bridge
14 and said, you know, there's some, I -- you know, I don't speak
15 Chinese, but --

16 Q. But those --

17 A. -- I think there was some communication from the bow to
18 the wheelhouse, but you'd have to ask the Captain, you know. I
19 thought I heard some communication on the radio, but I, I assumed
20 it was the bow lookout. It could have been an engineer or it
21 could have been --

22 Q. It didn't sound in English to you? It was --

23 A. Oh, it wasn't. No. It was Chinese. It was not
24 English, no. Definitely not English. So I had no idea what
25 he was saying, but I could see the tower now so I knew things

1 were --

2 Q. Question on training. Do you have or take or have
3 available any type of low visibility training? Or is that
4 something that --

5 A. Oh, we go -- and Pat could probably say this better than
6 I, we go to -- I believe this has just changed, but previously
7 every three years we go to a, an electronic simulator and we've
8 been to -- MM -- P school last time. I've been to San Diego.
9 Been to Vallejo. I think they put it to bid or something. I
10 don't know how they decide where we go, but we go every three
11 years, and we drove all kinds of stuff in the fog. I mean
12 we --

13 Q. When was your last -- last time you went to, to
14 simulator training? We can get that --

15 A. Yeah. It was in Baltimore. You know, I haven't gone
16 past my time, but I don't remember, but --

17 UNIDENTIFIED SPEAKER: It's in Baltimore. It's within
18 the last three years.

19 MR. COTA: Yes.

20 UNIDENTIFIED SPEAKER: Just starting a new addition to
21 the training cycle.

22 BY INVESTIGATOR CURTIS:

23 Q. -- get the -- your certification of completion for that
24 simulator class.

25 A. Yeah, okay.

1 Q. We'll get that later.

2 A. Fine. I have that. Can you make a note of that?

3 UNIDENTIFIED SPEAKER: Get that, Tom?

4 MR. COTA: Of the simulator, simulator training. And
5 then every five years, we go to France and work on the man models
6 for a week.

7 BY INVESTIGATOR CURTIS:

8 Q. The man models, those are --

9 A. Man models are 40-foot long simulated ship, built to --
10 built to scale.

11 Q. Where are those conducted?

12 A. In France, a place called Port Revelle (ph.).

13 It's --

14 UNIDENTIFIED SPEAKER: It's near Grenoble. It's --
15 (Simultaneous comments.)

16 UNIDENTIFIED SPEAKER: It's the manned model simulator.
17 There are several of them throughout the world. We sent --

18 MR. COTA: I've been to the one --

19 UNIDENTIFIED SPEAKER: -- to the --

20 MR. COTA: -- also. And we do, like I said, we do that
21 every five years. I've been to France. Well, I've been in 27
22 years now, so I've been to France I think at least three times and
23 Poland once.

24 MR. COTA: Okay, that's enough questions, Captain. Give
25 myself a break. I'll pass it on to --

1 UNIDENTIFIED SPEAKER: Keep in mind as we go around to
2 identify yourself. Pass it on to Tom Roth-Roffy.

3 BY INVESTIGATOR ROTH-ROFFY:

4 Q. Okay, Captain, I've just got a few questions to clarify
5 a few issues that I had in mind. The, the symbology. I'm sure --
6 I'm not quite sure I understand the nature of the discrepancy
7 between the symbols on the paper chart and the electronic chart
8 system. Could you in detail, as much as you recall, describe
9 those differences?

10 A. On -- when I asked the Captain to indicate to me the
11 center of the Delta Echo span of the bridge, we were on -- looking
12 at the -- I don't know if it's an ECDIS or an EC -- what kind it
13 is. There's another kind. But whatever kind it was, I asked him
14 where's the center of the bridge, and he pointed to this little
15 dot on the bridge. And on either side of the bridge, there was a
16 red triangle.

17 UNIDENTIFIED SPEAKER: Either side of the span.

18 MR. COTA: Either side of the span. North side, south
19 side of the point that he indicated was the center of the bridge.
20 And since I have never seen that symbol on a chart, I asked, I
21 said what, what does this indicate? And he said, the lights --
22 which they're all, you know, there's all these lights marking the
23 center of the span. So I figured, well, I guess this machine just
24 -- as far as I know there's no universal system for symbols for
25 electronic charts like there are for paper charts. So, I mean as

1 you can see on this chart, there's no red triangle. You look on
2 any American chart anywhere, anywhere, and the only red triangle
3 that you might see is a day mark or -- yeah. I've never seen a
4 light indicated by a red triangle, and I don't know if you've gone
5 out and look at the, the machine, but you could see it right on
6 the machine.

7 BY INVESTIGATOR ROTH-ROFFY:

8 Q. How does that correspond with the way the lights are
9 marked on the paper chart? Are the lights marked on the paper
10 chart?

11 A. Actually I don't see them marked. Has the RACON symbol
12 and -- yeah, yeah, I don't see anything on there, but, you know,
13 it's -- three lights, four lights in a vertical line, and you know
14 but they're constantly on. It's not like a 5-second light or a 2-
15 second light or something. It's just a constant light that's
16 there. I don't see any symbol on here.

17 Q. Okay. And in fact the red triangles were marking the
18 towers, is that correct?

19 A. Well, I'm assuming that the red triangles were in fact
20 marking the buoys on either side of the tower, but as you can see
21 on this chart and the other chart that I've seen buoys are
22 generally diamond shaped. And in this case, they're red and
23 green. You know, so they're two different colors. Yeah, see
24 those red -- I don't know if I -- could pass around, but --

25 UNIDENTIFIED SPEAKER: Just -- that's the document

1 referring to are photographic images that were captured by the
2 Coast Guard Investigative Team the date of the incident, correct,
3 Ross?

4 UNIDENTIFIED SPEAKER: Correct.

5 UNIDENTIFIED SPEAKER: And that's the document that
6 Captain Cota is referring to at the present.

7 UNIDENTIFIED SPEAKER: Is it also showing the track,
8 track line?

9 MR. COTA: But those are, yeah, see those -- I had never
10 seen those symbols before. That's why I wanted to clarify what
11 that was.

12 BY INVESTIGATOR ROTH-ROFFY:

13 Q. But in terms of scale, isn't the, the scale of the
14 bridge approximately the same as what you would see on the paper
15 chart? And could you not, you know, just from your recollection
16 of, of the paper chart and that be able to, to tell where the
17 center, center opening was?

18 A. Well, I relied on the radar to do that, and then when I,
19 when I, when I distrusted the radar, I shifted to the ECDIS and,
20 and I went by what he told me. So I, you know, I just -- I
21 assumed he was correct when he told me this. I mean it's his
22 ship. I mean he works with this thing every day. He told me
23 that's the center of the bridge. You know, and after I -- you
24 know, I, I was in the correct position when I started to turn, and
25 usually it goes right through the center, so I think there was --

1 well there definitely was confusion from when I shifted from the
2 radar to that -- before. As I did that, the Captain was right
3 there, and I once again said, is this the center of the span? And
4 he assured me that that's the center of the span.

5 BY MR. MEADOWS:

6 Q. This is Meadows. Do you navigate by ECDIS ordinarily
7 when you're piloting?

8 A. I generally use as many pieces of equipment that are
9 good, but I, I got to the point where I didn't trust the radar.
10 So --

11 Q. Do you operate normally -- do you ordinarily check the
12 ECDIS and, and give your helm orders and speed changes and all
13 according to what you see on the ECDIS --

14 A. No. I usually go by the radar. My general -- I depend
15 more on the -- I use the radar more than ECDIS just because I'm
16 older and ECDIS's are relatively new, and I've been using radars
17 for 30 years, so. But like I said, I've never had a radar distort
18 like that, you know, at a crucial point. So I, I just distrusted
19 the equipment at that point, and I went to what I thought would be
20 a more accurate piece of equipment.

21 BY INVESTIGATOR ROTH-ROFFY:

22 Q. Okay. Going back to your, your interaction with the
23 radar early on before you got underway, you mentioned that you had
24 some concerns about the ARPA and that you had made some
25 adjustments. Could you describe what adjustments you made to the,

1 to the radar?

2 A. Oh, gain, the sea return, and I forget if they had the
3 gain -- a lot of ships for some reason use the gain suppressor
4 when there's not gain and quite a few foreign ships for reasons I
5 don't understand, they have a tendency to turn the gain way up and
6 the sea return way up, which I don't, I do it the other way. I
7 turn everything down. Turn the gain up until I get a picture that
8 what I think is the best, and then if sea clutter becomes a
9 problem, then I tune that out with the sea clutter thing, and
10 then, and I, when I got on there, we couldn't -- this terminal,
11 the Seventh Street Terminal, was barely visible. So I, that's
12 when I said to the mate, I said there's a whole terminal up here.
13 I said it's not, not even on your radar, you know. So that's
14 when I started, this wasn't there, and was a number of things you
15 couldn't see, and then there were other things that weren't there
16 that you could see. So we spent quite a time on both radars
17 tuning it to our satisfaction, to my satisfaction anyway. I
18 assume they were satisfied with it. But and then I wanted to
19 check the ARPA, and then that like I said that didn't work for a
20 number of vessels, and I don't know why it worked later, but you
21 know I did track three vessels, I believe, and so I had -- I
22 figured that whatever had been wrong with the ARPA was fixed and
23 working, and there was no traffic. You know, I wasn't concerned -
24 - I mean, you're always concerned about traffic, but I -- traffic
25 had reported that there was no ships coming in through that span

1 or nobody coming through here. So I wasn't expecting to meet any
2 traffic, and we didn't meet any traffic, but, you know, I did want
3 to make sure the ECDIS worked before I left the dock or you know
4 the ECDIS didn't work, we're not going, I mean, but they got it to
5 work somehow.

6 INVESTIGATOR ROTH-ROFFY: Okay, that's all I have,
7 Captain.

8 MR. COTA: Okay.

9 INVESTIGATOR ROTH-ROFFY: Going to go ahead and pass to
10 the next.

11 UNIDENTIFIED SPEAKER: Just identify yourselves as we
12 go.

13 MR. SCHAEFER: Scott Schaefer, Coast Guard.

14 BY MR. SCHAEFER:

15 Q. When you're onboard the bridge, is -- are you looking at
16 one radar or two radars before you get underway?

17 A. Oh, I check out everything out. The radars, if they
18 have -- check that and --

19 Q. So the radars on separate consoles?

20 A. No. This was all kind of connected. One radar was next
21 to, next to the ECDIS, and I forget if there was another piece or
22 something between the other radar, but they were all within six
23 feet.

24 Q. Okay.

25 A. One radar was here. I mean it was a matter of steps to

1 go from one radar to the other.

2 Q. But the two radar are they different systems?

3 A. Yes.

4 Q. And then when you said you had a problem with the radar
5 or you were, I think something about just when you were west of
6 buoy one, your radar picture deteriorated. Are you talking --
7 which radar are you talking?

8 A. I believe both of them. I -- because I checked one and
9 I couldn't, I mean I couldn't believe how bad the picture got. So
10 I went to the other one, because like I say, my main instrument of
11 -- or the main thing I use is the radar, and I went to both
12 radars, and to me the picture was bad on both of them. Unreliable
13 on both of them.

14 Q. So before you got underway though, you had a useable
15 picture on both?

16 A. Yeah. Every, everything looked fine. That's what I was
17 astonished that, you know, radars are -- can be strange items, you
18 know, they work one minute and something goes wrong, and then they
19 don't work.

20 Q. You talked about the voyage out. You mentioned trying
21 to keep the VRM at .33, keep it at .33 around southern part of
22 YBI, and then you mentioned a port rudder command. When during --
23 where were you at that point? Where was it?

24 A. Oh, that's when we hit the tower. To keep the stern
25 from continuing to swing, we were swinging starboard. The bow,

1 you know, the bow was going to starboard, but --

2 Q. Yes, sir. You talked about that as the, you know, hard
3 rudder command, but I thought earlier you mentioned about turning
4 to port earlier in the transit.

5 A. Oh, yeah, oh, when I got to buoy one, I had to turn to
6 port to get, to get out of the Bar Channel and get to, you know,
7 over to the bridge, but I don't remember what --

8 Q. Okay.

9 A. -- rudder command I gave.

10 Q. And just working on the next --

11 A. Yeah.

12 Q. -- sequence there. Then you mentioned you were coming
13 right and -- sequence of VTS called you and said got you on 235
14 and I think you said something about, no, we're, you know, 280.

15 A. Right.

16 Q. Were you turning at that point?

17 A. Oh, yeah, yeah. I was well into the turn by then, yeah.
18 Because like I --

19 Q. -- you were already --

20 A. -- generally steering out of the Bar Channel, I don't go
21 left of 250 because 25 -- you can aim at the tower at 250 and
22 then, you know, that will open you up, and then you come around at
23 310 and 315.

24 Q. And -- how far over were you on the rudder for your turn
25 to starboard then?

1 A. Yeah, I --

2 Q. Is it a standard --

3 A. Well, I -- traditionally I use -- I can make that turn
4 with 10 degrees rudder, but I may have given more because this was
5 a heavier ship, and I forget our -- you know, we weren't -- I
6 think we were on a half bell and I didn't go up to a full bell
7 until we got closer to the bridge. And after -- I think sometime
8 after traffic said we got you at 235, I said, well, boy, I don't,
9 but for some insurance, I'm going to, you know, give it the
10 bullets and more rudder and try to -- but you know there is -- if
11 some reason I am over there, I'm going to do everything I can to
12 get back over to the other side. So that's when I gave the full
13 bell and hard starboard.

14 Q. So explain to me what --

15 A. I --

16 Q. -- what made you --

17 (Simultaneous comments.)

18 A. -- sequence.

19 Q. I'm asking what was the cue that gave you to lead the
20 hard right and head full?

21 A. I believe it was traffic's mention of this 235, which,
22 you know, like I said, I'm looking in the radar and the heading
23 flasher is on 280.

24 Q. So -- you just made a harder turn then when --

25 A. Yeah, yeah, yeah, oh, yeah, no, I was, I was swinging

1 right, and then when they said that, I said, well, maybe something
2 is wrong on the ship or some -- I couldn't -- there's no way I
3 should have been at 235. So just for insurance, and even though
4 like I said, looked on the, on the heading flasher that I had
5 already cleared what he had said was the center of the tower, was
6 center of the bridge. I figured, well, you know, I got more room
7 over there, I'll just keep going. I mean it can't hurt to come
8 further right than left. So I just tried to accelerate it just
9 because of what they said, you know, they said, you know -- I
10 didn't understand how they got that, and I certainly didn't have
11 time to say, wait a minute, can you explain that to me now?

12 Q. Was there 235 matched to a previous course? I think you
13 said you had been -- you, you weren't at any point that far.

14 A. I don't believe. That's not the standard, my --
15 certainly not my standard practice. So I'm not sure what the
16 helmsman did with the rudder is my concern, because I can't see
17 how it could have come that far left. It's just not a course that
18 anybody I know would use to go through that tower. Putting you
19 too far to the south. You're making it impossible to make the
20 bridge. You know, it's just you're putting yourself in an
21 unrecoverable position.

22 MR. MEADOWS: We were given earlier, the day after the
23 collision, a very faint copy of the course recorder with numbers
24 written -- the left side. Do you have that in your, in your
25 exhibits? Perhaps you might want to include that in your

1 question.

2 MR. COTA: Because that's -- this was actually -- yeah,
3 okay, and I don't know if this looks as bad as the thing we got
4 the -- got off the ship. Do you guys have copies of this?

5 UNIDENTIFIED SPEAKER: I haven't seen anything on the
6 courses other than what I heard in the audio from VTS --

7 MR. COTA: Yeah.

8 UNIDENTIFIED SPEAKER: -- saying that 235.

9 MR. COTA: This is the course recorder, and Pat I'm sure
10 is a lot more familiar with course recorders than I am, but this
11 shows a course of 210 and 220. And I can't even -- the first time
12 I saw it, where did that come from? I mean 210 is going down 100
13 point -- and I asked the Coast Guard, the lieutenant -- that's a
14 much better copy -- Hopper, I said does that mean what I think it
15 means that the ship was staring -- at one point it was staring to
16 10 and at some other point 220? And he said, yes. So I had no
17 understanding or -- how that happened unless he went the wrong way
18 with the rudder. The only possible way I can think of him getting
19 to 210 or 220 is that when I gave starboard rudder, he went port.
20 That's -- I have no explanation. This is completely confusing to
21 me. I have no idea how this could be unless maybe the course
22 recorder was broken or not right or something. But those course
23 -- I never gave courses anything like that.

24 BY MR. SCHAEFER:

25 Q. Two real quick ones.

1 A. Yeah.

2 Q. When you give a rudder command, what are you looking for
3 in response either visually or from the helmsman to verify the
4 actions?

5 A. Usually I look at the rudder indicator, but at this
6 particular time, I was more concerned with my position on the --
7 relative to the island and the bridge and everything, and I didn't
8 look at that. When I gave that hard rudder, I didn't check --

9 Q. -- before that just a, you know, a standard turn to port
10 or you're -- when you're starting to come right to go under the,
11 the bridge, and you give a rudder command, does the helmsman
12 repeat that?

13 A. Yes.

14 Q. And then are you looking at the radar or up at a rudder
15 angle indicator or what's your cue?

16 A. Well, usually I look up there, but it takes, you know,
17 takes awhile. You say hard starboard, then it takes awhile for
18 the thing to crank around. So when I gave the hard rudder
19 command, I will say I was looking at the electronic information
20 here. I did not check the rudder, so.

21 Q. And the --

22 A. Perfectly honest about that.

23 Q. -- as part of your getting underway checklist, you
24 verify -- you know the angles of the, the dock, so you're looking
25 at making sure that the gyro and the radar --

1 A. Yeah, everything looked --

2 Q. -- proper?

3 A. Yeah. There was nothing obviously out of whack. You
4 know -- I forget what the course was, but it was, you know.

5 MR. SCHAEFER: Thanks, Captain.

6 MR. COTA: Okay.

7 UNIDENTIFIED SPEAKER: Pass along. Next.

8 MR. JONES: Tom, can I jump in?

9 INVESTIGATOR ROTH-ROFFY: Sure. Go ahead, Captain. See
10 if you're still there, Rob.

11 MR. JONES: Yeah, I'm here.

12 INVESTIGATOR ROTH-ROFFY: Go ahead.

13 MR. JONES: Hi, Captain.

14 INVESTIGATOR ROTH-ROFFY: Captain Jones.

15 MR. JONES: This is Rob Jones.

16 BY MR. JONES:

17 Q. And just please bear with me. I don't have a chart in
18 front of me, and I haven't been to San Francisco Harbor by ship,
19 so.

20 A. Oh, okay.

21 Q. What's the true course through the span that you were
22 trying to go through? What would have been the course like
23 between the, the span there?

24 A. Usually I go between 310 and 320.

25 UNIDENTIFIED SPEAKER: That is the --

1 MR. COTA: Yes.

2 BY MR. JONES:

3 Q. Kind of a perpendicular course just right underneath the
4 bridge?

5 A. Yeah. I line it up for further down the Bay where we
6 have to make our next course change.

7 Q. And, and can you just -- and this is looking from south
8 to north, if I got this right just from pictures I've seen before.

9 There's a, like a center column support, which is just like on a
10 concrete column --

11 A. -- tower, yes.

12 Q. And there's two spans to either side?

13 A. There's Alpha Bravo span, a Bravo Charlie span, a
14 Charlie Delta span, which is a cement tower to the one I hit, and
15 then there's a Echo tower, which is closest to Treasure Island.
16 Or I mean YBI.

17 Q. Okay. Okay, Treasure Island, that's the island that the
18 bridge goes across and then around into, into the mainland?

19 A. Yeah. Actually it's Yerba Buena Island. They're
20 connected, but --

21 Q. Okay.

22 A. -- the real island is Yerba Buena.

23 Q. Okay. All right. I've got a better idea then of what
24 I'm looking at. Appreciate it. If we could just go back a little
25 bit to the, the master pilot exchange you did with the Captain of

1 the vessel and that form you said, you, you put out was, you know,
2 pretty in-depth. Did he sign yours? Did you sign anything he
3 gave you?

4 A. We never have asked them to sign it. It's not even a
5 place to sign it. Because I don't take it back from him. I give
6 it to him when we sail or ride, and you know I never collected
7 them.

8 Q. Okay, that's fine.

9 A. And I, I can't remember if I signed the pilot card. I
10 may have. I don't remember, but I'm sure somebody has a copy of
11 it.

12 Q. Well, along, along the lines of what you gave to him,
13 did he ask anything of you? Did he have like a -- his own version
14 only from the ship's side that, you know, he asked questions of
15 you?

16 A. Not, not that I can recall. Certainly nothing about the
17 transit.

18 Q. Okay. When, when you were going over your Master Pilot
19 Exchange with him, did he have basically like a bridge key
20 meeting? Did he bring his staff around, whether it be the
21 helmsman and the, the junior mate that was up there with him to
22 hear the discussion?

23 A. I didn't see them. I handed him the document, and he
24 took it, and I, I think he read it, but I don't recall him
25 discussing it with the mates or the helmsman. I don't even know

1 what he did with it, to be perfectly honest, but, you know, I
2 handed it to him and was expecting him to read it. If he -- it
3 says right on it, if you have any questions --

4 Q. Okay.

5 A. -- ask.

6 Q. Okay. And did he?

7 A. No.

8 Q. Okay. Was he -- what time was the ship due to sail?

9 A. 6:30.

10 Q. 0630. And was he concerned about the fog at all. Did
11 it look like he was concerned that it was -- he was being delayed
12 or --

13 A. No, no, he, he did not put any pressure on me to say,
14 I've got to be in Hong Kong on Tuesday or, you know, we need to
15 get going, I got, you know, I've got to be in -- no, he -- nothing
16 at all.

17 Q. Okay.

18 A. No. He was, you know, we waited until the -- I, I don't
19 remember what time the last line was, but it must have been after
20 7:30, because it certainly didn't take us an hour to get to the
21 bridge. I mean we waited until the visibility got where we were
22 both comfortable with it, which was over an hour or maybe an hour
23 and a half.

24 Q. Okay. So when, when the visibility rose enough, you
25 approached the Captain and said what do you think or let's --

1 A. Yeah. We'd gone through the radars and everything, and
2 I said to him, I told him there was a tug and two barges coming up
3 the estuary, and if he was satisfied with the, you know, I forgot
4 -- I don't remember exactly how I put it, but I -- do you want to
5 sail or do you, do you feel comfortable sailing or something to
6 that effect. You know, I wanted his approval. I'm not just going
7 to take his ship out.

8 Q. And in your, in your opinion, you say that enough to him
9 where he gave you approval and off you went?

10 A. Yes.

11 Q. Okay.

12 A. And I told him how we were going to undock, what I was
13 going to do. I said we'll come out into the middle of the
14 estuary. We'll shift the tug to the stern for some insurance, and
15 we'll, you know, we'll head out.

16 Q. Okay. And are there any restrictions in the port with
17 regards to fog? Minimum distance, minimum visibility?

18 A. I -- in the area of the U.B. Bridge, I know that you
19 have to have a half a mile.

20 Q. Well, how about getting under, underway from where you
21 were at the dock?

22 A. I don't, I don't remember hearing -- I don't remember
23 that there's any --

24 Q. So it's just your judgment?

25 A. And the Captain. I mean it's the Captain's judgment,

1 not my judgment. It's his ship. I don't take ships away from
2 captains. I don't do anything without asking him.

3 Q. Well, let's just say it's your judgment and his
4 concurrence.

5 A. Yes.

6 Q. Okay. And how about, you know, in that type of
7 visibility, are there any speed restrictions in the port?

8 A. The only speed restrictions I know of in the port is 15
9 knot maximum speed and we have a -- but I don't know if it's a
10 port regulation -- escort -- tankers.

11 Q. So with regard to visibility, there's, there's no
12 maximum speed with regards to visibility?

13 A. None that I know of.

14 Q. You just keep the ship at a top speed for ship handling,
15 is that a fair -- at the minimum --

16 A. Right, you know, what's considered -- what we consider
17 safe, you know, for the conditions.

18 Q. Okay.

19 A. That's why I didn't come out of there full ahead.

20 Q. And what, approximately what speed were you going at the
21 time of the collision?

22 A. Boy, I, I'm not sure because I forget. The ship had
23 three big bells. It was a pretty fast ship. A full bell is --
24 was 17 knots, I believe, and I didn't get the full bell until just
25 before the bridge, so I forget what the half bell was, but I kind

1 of hate to guess because this might screw me, but --

2 Q. No, I don't want you to guess.

3 A. Okay. Well, I would say roughly somewhere between 8, 8,
4 maybe 9 knots would be my estimate.

5 Q. Okay. Just to confirm, you were on a half-ahead-bell?

6 A. At one -- yeah, at one point in the Bar Channel. We
7 came out dead slow, and then we got a little further out I went to
8 slow, and then when I think as we got close, you know, to the end
9 of the Bar Channel, it went up to half, but --

10 Q. Did the --

11 A. -- I'm sure this is all documented somewhere.

12 Q. I'm sure with each bell there is -- until it gets there,
13 there's speed increases and decreases, but did the Captain give --
14 on a pilot card or a ship's characteristics, did he give you a
15 speed, speed at those bells?

16 A. Yes.

17 Q. Okay. So you were aware of them anyway?

18 A. Yeah, I had it. I believe I had it in front of me at the
19 time, but I don't recall what it was now. I just remember that
20 the full bell was 17 knots, which is pretty unusual for a
21 maneuvering full.

22 MR. BOWLING: Captain Jones, it's your NTSB teammate,
23 Larry Bowling. I'm going to hand the copy of the Pilot Card to
24 the Captain there.

25 MR. JONES: Oh, okay.

1 MR. BOWLING: Captain, that's the document Captain Jones
2 might ask you to -- what Captain Jones is referring to.

3 MR. COTA: Okay. You want to read to you what the
4 speeds are?

5 BY MR. JONES:

6 Q. That's fine. We don't have to go any further. I was
7 just, just curious.

8 A. Well, yeah --

9 Q. Keep that in hand in case it comes up later. Captain,
10 how did the ship handle?

11 A. I thought it was reasonably well. Maybe a little
12 sluggish because it was 40 feet, you know, kind of deep.

13 Q. That was the -- draft, 40 feet?

14 A. Yeah, well 40 feet 4 inches, I believe

15 Q. Do you remember its forward draft?

16 A. Well, I can read it off this -- it's on the Pilot Card
17 here. It's 39 feet 9 inches.

18 Q. Great memory. Thanks. No, I appreciate it. I just
19 wanted to know if she was squatting a little.

20 A. Oh, yeah, but there's plenty of water under the bridge.

21 Q. So how much was there, as long as you brought that up?

22 A. Right under the bridge is 110 feet.

23 Q. Okay.

24 A. 80 -- between 80 -- well, it goes 80, 94, 110, 101, you
25 know, so squat is not a factor under the bridge.

1 Q. Single-screw, single-rudder?

2 A. Yeah.

3 Q. Right-hand propeller?

4 A. Yes.

5 Q. Had a bow thruster. I guess that was pretty much not
6 usable at that speed?

7 A. Yeah, I -- it wouldn't have been effective.

8 Q. Okay. And --

9 A. I don't believe. You know, usually over 5 knots they
10 don't work much.

11 Q. Right. And what, what type of propulsion? Was it
12 diesel -- I don't think it was --

13 A. Diesel?

14 Q. And was, it wasn't bridge control it was telegraph, I
15 think you had mentioned, right?

16 A. Well, I don't know, and unfortunately as far as I know,
17 nobody has been able to get out there and find out how that
18 worked. I certainly haven't, and I've tried to send several
19 people out there, and they've all been denied access to the engine
20 room, the wheel house, personnel, everybody. So I have not been
21 able to get bell books, engine room logs, anything. So when I
22 ordered half ahead, whether I got it or not, I'm very curious to
23 find out, and they would give us nothing.

24 Q. Okay, well --

25 A. Far as I'm concerned, they have not been cooperative at

1 all with information.

2 Q. While, while you were -- the ship, you were, you were
3 understanding that you were giving bell orders and they were being
4 answered?

5 A. I have to assume that.

6 Q. Okay.

7 A. I don't know that at all. I mean, you know, generally
8 you don't know unless -- well, lot of times you don't know. I
9 mean some, some ships there's a big lag, some ships are -- a lot
10 depends on the crew, the type of propulsion. Like I said, I --
11 it's not unusual for I have ordered a full bell on a ship and for
12 some reason the chief engineer felt that he, he's not ready to
13 give me a full bell, and I've gone miles before the ship would
14 come up to a full bell.

15 Q. Captain, was there an RPM gauge anywhere where you could
16 visibly see it?

17 A. I'm assuming there was one up there, but like I said, I
18 had my head in the radar and the other thing. I, you know, when I
19 give, when I give an order like that, I have to assume that
20 they're going to do what I say. I can't check everything, and I,
21 and I thought it was more important that I know where my position
22 was relative to the bridge and the land and everything else. And,
23 and there's nothing I can do, you know. If I order full ahead,
24 and he doesn't give it to me, there's absolutely nothing I can do
25 about that, you know.

1 Q. Okay. If, if you do give an order like that, what,
2 what's your -- on that ship, what's your best indication that the
3 bell was being ordered one way or the other?

4 A. There was, I believe there, there was a speed readout on
5 the radars, and I don't recall if it was water speed or GPS speed,
6 but like I said, I don't, I don't really recall checking the
7 speed, you know, every -- on my way out. I, I was comfortable
8 with the speed we -- the ship was steering and we weren't going
9 what, you know, an excessive speed, I don't think under any
10 circumstances, you know, flying out of there on a full bell. But
11 like I say, it's a mystery to me whether, you know, whether I got
12 the, whether I got the rudder commands or the engine commands is
13 something hopefully you guys will find out.

14 Q. Okay, Captain, I haven't heard it yet, but I was just --
15 just to confirm it, were you using a laptop or no?

16 A. No.

17 Q. Okay. Have you ever --

18 A. If I can just add one reason why I would say most of the
19 pilots from San Francisco don't use it is because there's been
20 considerable discussion in the American Pilot Association on
21 liability. If you're relying on a piece of equipment you bring on
22 the ship versus using the ship's equipment, who is liable. So
23 until that ends up in court somewhere and somebody makes a
24 decision on that, lot of pilots are leery about carrying their own
25 equipment just because it's -- you might be exposing yourself to a

1 lot more liability then, you know, necessary.

2 Q. Okay. Have you ever been on this ship before, Captain?

3 A. No.

4 Q. A sister ship?

5 A. Boy, I may have, but I'd have to see a list of names.

6 And this thing just changed names and also just changed crews like

7 a week ahead of this, prior to this, week or 10 days, I believe.

8 Changed -- as far as I know, they changed the entire crew out. So

9 how familiar the crew was with the vessel is also a concern of
10 mine.

11 Q. And --

12 A. And I did talk to a pilot who had handled the ship --

13 brought the ship in on September 9th or 10th, I believe, and it had

14 a German crew on it at that time. So at some point it changed

15 from Germans to Chinese or maybe they changed -- I had a date, but

16 this is like -- do you remember the date I told you?

17 UNIDENTIFIED SPEAKER: September 11th.

18 MR. COTA: It was in, it was less than a month or --

19 UNIDENTIFIED SPEAKER: The crew change was October 30th.

20 MR. COTA: Yeah, it's like a week before this. You

21 know, the crew had changed out, so that does not inspire a lot of

22 confidence in me either. I've sailed enough when you're on a new

23 piece of equipment, you know, maybe these people have sailed on

24 these ships before, but if it had a German crew prior to this and

25 now they have Chinese crew with no Germans staying with them to

1 break them in or point out any idiosyncrasy or anything else, I
2 think is something to take note of.

3 Q. This, this pilot that brought this to your attention
4 that the crew was changed, did he bring anything else to your
5 attention about the vessel?

6 A. No. He just mentioned that -- because he had asked me
7 were there, were there Germans on there, and, and the document I
8 think that the Coast Guard has, it even has a German call sign,
9 which is a different call sign that was on -- the ship was
10 registered in Hong Kong, I believe now. But it was a different
11 information. It had changed flags sometime between when that
12 pilot brought it in, in September and November. So it changed
13 flags. It changed crew. I don't know if it changed companies.

14 Q. Seems like it's such the nature of the business out
15 there in --

16 A. Well, I'm not so sure that's correct.

17 Q. How about the pilot --

18 A. Depending, depending on the training that goes on when
19 crews are changed out; and, usually, you know, there could be
20 language problems. You've got Germans talking to Chinese. You
21 know, there's a lot of room for misinterpretation.

22 Q. Do you run into that trouble a lot?

23 A. Yes.

24 Q. Even though all the commands supposed to be given in
25 English?

1 A. Oh, yeah, but like I say, I don't usually have lengthy
2 discussions with the captains, unless maybe they're Europeans and
3 they really speak English. Generally, I just give rudder and
4 engine commands and say, you know, we'll have the tugboats at this
5 time. First line -- lines, you know, basic things, you know.
6 When we anchor, we'll put six shackles in the water. Basic
7 maritime terms. But I thought that it was interesting that the
8 Coast Guard had to bring up two interpreters the second day in
9 order to complete their -- to get their questions answered
10 satisfactorily. I mean I think that's kind of unique that you
11 have to bring two translators to talk with the crew, who is
12 supposed to be somewhat fluent in English, at least the wheelhouse
13 people.

14 Q. Captain, you said as you approached the bridge you were
15 using -- you had the variable range marker on .33, is that
16 correct?

17 A. Yes. Yes.

18 Q. And so now you, you've stated that the, the radars were
19 acting -- and I won't -- you weren't, you weren't -- you didn't
20 sound you were comfortable with either radar.

21 A. Right. The, the picture became distorted.

22 Q. Have you ever seen that happen before?

23 A. No. I've never seen a radar respond like this.

24 Q. And that was both radars?

25 A. Yes. Bridge, the bridge expanded in size. And, like I

1 say, nothing -- the RACON wasn't visible on either radar nor were
2 the towers, which show up on good radars, and the buoys marking
3 the towers show up on good radars or some radar --

4 Q. At any time before you got close to the bridge, at any
5 time in the voyage towards the bridge, did you notice the RACON?

6 A. Never.

7 Q. Did the pilot that brought the vessel in, did he relay
8 any problems to you with the vessel or its radars or equipment?

9 A. Let's see. I did talk to the pilot that brought it in
10 yesterday, and he said they had a course line through the tower on
11 the, on their electronic chart, and he said he pointed out to them
12 that this was in error and this needs to be corrected.

13 Q. I was more wondering if you talked to the pilot that
14 brought the ship in before you left the dock with Cosco Busan.

15 A. That's the pilot I'm talking about.

16 Q. Yeah. When did he tell you about this line, before or
17 after the accident?

18 A. After.

19 Q. Okay.

20 A. I didn't see him until after.

21 Q. Is there, is there any procedure that you know with the
22 pilots that would, you know, one -- except for just word of mouth
23 in passing where, you know, anything was out of sorts with the
24 vessel's equipment, make it known to the, the general pilot
25 population there?

1 A. Well, generally if, if you have a propulsion problem or
2 a steering problem, people get that word out, but lot of pilots
3 like I believe he said, you know, was a clear day. He wasn't even
4 using the, the -- he, he didn't feel the need to use the ECDIS,
5 but he'd noticed that they had drawn a course line to the tower,
6 and he said, you know, this is a mistake, you need to change this.
7 And when I got on the ship, there was no course line at all on the
8 ECDIS that I could see, but I didn't look must past the bridge,
9 but there were no track lines on the electronic chart.

10 Q. And, Captain, just because we haven't asked this
11 question, just for confirmation, I'm assuming you were in hand
12 steering?

13 A. Yes.

14 Q. Okay. And you know the, the gyro error that was on the
15 vessel?

16 A. I don't remember. It might have -- it was on the Pilot
17 Card, but it was nothing significant if it, if there was anything.

18 Q. Okay.

19 MR. COTA: Can I see the pilot card again?

20 UNIDENTIFIED SPEAKER: Yes.

21 MR. COTA: And usually they'll point -- I mean the
22 captain or somebody will come up and say we have a 2 degree
23 westerly error or -- and I believe that's mentioned in the Master
24 Pilot Card that I gave them, if there's any error or deficiency.

25 BY MR. JONES:

1 Q. And, Captain, I think this has been asked already, but
2 you, you hadn't -- you don't know the, the type of radar they
3 have?

4 A. No. I don't remember the, the brand.

5 Q. Okay. Had you seen that type of radar before?

6 A. I believe so. I don't think it was an Egrit (ph.) or --

7 Q. Okay. When, when you were maneuvering through the
8 harbor, away from the dock and up to the bridge, did you know if
9 anyone was fixing the vessel's position on a chart?

10 A. No. That's the mate's job.

11 Q. Yeah, but were you aware if anybody -- if they were
12 coming to you and saying they put a fix down?

13 A. I have never had a mate come to me and tell me he's
14 putting a position on a chart.

15 Q. Okay. Did you hear any interaction between a mate and
16 the Captain?

17 A. It would have been in Chinese, and I wouldn't have -- I
18 mean he could have said something, but I don't speak Chinese, so.

19 Q. And I --

20 A. There was some, there was some discussion going on as we
21 were going out, but I mean they could have been talking about the
22 -- or something for all I know.

23 Q. I just didn't know if the, if the chart table was out on
24 the bridge or back behind a --

25 A. Oh, no. The paper chart was somewhere else. It was --

1 it wasn't visible to me.

2 Q. Okay.

3 A. I would have to go look for it, you know, to wherever
4 the chart table was, but the chart table wasn't, you know, wasn't
5 in --

6 Q. Wasn't in your view.

7 A. Yeah. I didn't see it. I didn't see the paper chart.
8 And on this Pilot Card, I don't see any listing of gyro error, any
9 gyro error.

10 Q. Okay. Would -- usually if there's a, if there's a space
11 for gyro error, if there's none, they'll just put zero.

12 A. Yeah. I'm --

13 Q. Is there a space there?

14 A. I don't see it on there anywhere, but maybe, you know,
15 every ship -- oh, zero, zero, okay.

16 Q. Okay.

17 A. Pat does this a lot.

18 Q. Captain, when you, when you left the dock, was it -- I
19 know visibility was reduced, but was it still dark or was it
20 light?

21 A. No, no, no. It was light.

22 Q. Okay.

23 A. And like I say, I don't recall what time last line was.
24 Maybe when you guys have it, but -- or it must have been after
25 7:30, I believe, because if we hit the bridge at 8:30, doesn't

1 take an hour to go that far so.

2 Q. And, Captain --

3 A. We, we waited over an hour and a half for visibility to
4 improve.

5 Q. And the radars that you were -- were they base-free
6 radars or did they have cones around them so it would improve
7 your, you know, you know your viewing of it?

8 A. I don't believe they had cones around it.

9 Q. Was just a day screen that you could look right at, and
10 you could --

11 A. Yeah, as I recall.

12 Q. Okay. And how far, you know, after the allision, how
13 far was that transit out to the anchorage?

14 A. Boy, I'd have to measure it on the chart.

15 Q. Ballpark.

16 A. Let's see, mile and a half, two miles. I don't think
17 it's two miles even.

18 Q. After you -- Captain, now, now that you're after the
19 allision and you, and you're north of the bridge, how did the
20 radars work -- to the anchorage and then while you were at anchor
21 awaiting the other pilot?

22 A. It's almost exactly a mile to the approximate area where
23 I anchored from the bridge. And what, what I used, the radar --
24 how I anchored the ship was I used a variable range radar on a
25 half a mile and -- unfortunately you don't have a picture, a chart

1 in front of you, but there's a corner on the island, and I go a
2 half a mile off that usually due west.

3 UNIDENTIFIED SPEAKER: And that's Treasure Island?

4 MR. COTA: Yeah, that's Treasure Island, Yerba Buena
5 Island, and that's anchorage seven.

6 BY MR. JONES:

7 Q. And I don't know if you heard that question as you were
8 working on the chart. Did you -- how were the radars after the
9 allision and you moved up to the north of the bridge?

10 A. Well, you know, I never looked back at the bridge. I
11 was more concerned with getting the ship anchored as soon as I
12 could and you know assessing the damage. So I don't remember
13 looking at the bridge behind me. I was looking ahead. I was
14 concentrated on getting into the anchorage, get this thing
15 anchored and notifying people, getting -- which I did notify
16 traffic as we hit the bridge.

17 Q. Okay.

18 A. And then I called them again when I saw, you know, oil
19 in the water. That was after we -- I didn't see any oil until we
20 were anchored, but I, I wasn't looking. I mean I was -- I didn't
21 -- after we anchored, I went out on the bridge wing and then you
22 could see the oil, but I was maneuvering the ship into the
23 anchorage, and I was at the radars, so I wasn't aware that there
24 was oil coming out. But the pilot boat apparently was approaching
25 at that time, and they called the Coast Guard, and I don't know

1 who in the Coast Guard had reported that there was oil coming out
2 of the, the side of the ship.

3 Q. You first boarded that morning, you weren't happy with
4 the radars. How many -- was, was the vessel just finishing up
5 working containers?

6 A. No. They were, they were finished with the cargo, but
7 there was a port captain or a superintendent or somebody was still
8 onboard doing something so, but since we weren't going anywhere
9 right away, it didn't matter. The Captain said there's somebody
10 still -- I don't know if they were doing paperwork or what, but he
11 said -- I forget if it was a port captain or agent or some --
12 somebody was still doing work on the ship, paperwork, you know,
13 not --

14 Q. Were there, were there a lot of container cranes around
15 the vessel?

16 A. Boy, I forget if there's four cranes on that for two
17 berths or -- but they weren't in any way in danger of being hit
18 when we sailed. I wasn't concerned about -- I don't recall the
19 position of the cranes, but it wasn't a concern.

20 Q. Okay.

21 A. Because the ship came bodily off the dock, you know, so
22 I was -- the only direction I was going was away from the cranes.

23 Q. And out of the -- after you got off the berth, and I'm,
24 I'm just not sure how that pier is set up, pier or berth or --

25 A. Yeah.

1 Q. -- you know, but once you got say clear of the dock, say
2 clear of it -- not going out to the fairway -- and again, if I'm
3 using the wrong terminology for that port, forgive me, but --

4 A. Yeah.

5 Q. -- the radar picture improve once you got away from the
6 crane?

7 A. No. Before we left the dock the radar was satisfactory.

8 Q. Okay. That just seems like a lot of tuning of the
9 radars. You know, I would assume the pilot coming in or the
10 radars would have been tuned, you know, on the voyage in.

11 A. Well, you know, different watch officers tune the radar
12 to their satisfaction, and depending on who was on watch when they
13 arrived and who was on watch when they sailed, it's usually the
14 mate that's on watch that sets the radars, and they set it to
15 their satisfaction. So I don't know who set it up, but it was
16 terrible, I thought.

17 Q. But once you got away from the dock and, and headed up
18 to the bridge, you were more satisfied with them?

19 A. Before I left the dock.

20 Q. Okay.

21 A. I wouldn't have left the dock if I didn't -- if I
22 couldn't get the picture I wanted, the way I wanted it, I wouldn't
23 have left.

24 Q. Okay. And then about where approaching the bridge did
25 they go bad again, that you lost --

1 A. Well, somewhere -- like I say, I was using it to get my
2 .33 off the, the Island, and I commenced my turn and you're -- at
3 that point you're approaching the bridge, and at that point the
4 bridge became distorted. I mean the picture became what I
5 considered unreliable. And I went to the other radar, and it was
6 -- I couldn't get any better results out of it, and I -- believe
7 me, I didn't want to start adjusting the radar at that point. I
8 mean I'm in the middle of a turn, and I'm approaching the bridge.
9 I didn't think it was prudent to start, you know, playing with the
10 tuning or the gain or anything else. So I went to what I thought
11 was the next most reliable piece of navigation equipment.

12 Q. Okay. And now you say the, the bridge was distorted.
13 How about the land? How about that island that you were using
14 the, the .33 off of?

15 A. Well, if you had a chart, that point is pretty
16 prominent. So it, it stands out well on almost any radar.

17 Q. How, how was this picture once the bridge started
18 getting distorted?

19 A. Once the bridge started to get distorted, I left the
20 radar because I didn't trust it.

21 Q. Okay. I mean you couldn't -- do you have any
22 recollection of how the, the land mass looked or the leading edge
23 that you were using the point of?

24 A. Well, I was past the point at that time.

25 Q. Okay.

1 A. You know, and once, you know, I'm in my turn going for
2 the opening in the bridge, and like I say, the bridge, the picture
3 became unreliable over the -- what I considered untrustworthy. I
4 didn't want to trust it. I didn't have faith in the picture I was
5 seeing.

6 Q. Okay. And at that .33, that, that VRM, that same .33
7 through the whole span of the bridge as you --

8 A. You keep it on the, the edge of the -- you don't keep it
9 on the edge of the, you know, you don't keep it on that point, but
10 if you keep it on the shoreline, it will go, it will bring you to
11 the bridge.

12 Q. So you kind of look -- using that a little like parallel
13 indexing?

14 A. Yes, that's exactly how you do it.

15 Q. Okay.

16 A. That's how I've always done it. If the radar would --
17 if I would have trusted the radar, I would have done this way too.
18 That's the way I've always done it.

19 Q. Does the RACON, does that appear north and south of the
20 bridge?

21 A. Usually.

22 Q. Did you notice it after you got to the north of the
23 bridge and anchored?

24 A. No.

25 Q. Did you look for it?

1 A. Not in particular. I was more, like I say,
2 concentrating on anchoring and contacting people and getting
3 things moving. So I wasn't studying the RACON, but I did not see
4 it approaching. It never appeared approaching the bridge.

5 Q. When you, when you started contacting people, did you
6 let them know the RACON wasn't working also?

7 A. No. I thought the, the most important thing was to let
8 them know that the bridge had been hit, and secondarily then once
9 I noticed the oil in the water, that was the next. I called
10 traffic on the, on the radar and said I just hit the bridge, I'm
11 headed to anchorage seven, and then I called the pilot office on
12 my cell phone and told them I just hit the bridge and I'm going to
13 anchor. And then by then shortly after that we got anchored, and I
14 called traffic, and I believe that was also on the phone and
15 reported the oil. So I think there's only one radio transmission
16 between me and traffic. And then I called them when I was
17 anchored. I called them and said, okay, I'm anchoring at this
18 spot and I'm putting out this much chain, which the standard
19 practice is.

20 Q. Okay. And that ECDIS -- I, I -- that had a paper chart
21 ECDIS, and electronic -- the electronic display that also had a
22 paper chart or was it just images of the buoys and the bridge?

23 A. No. It's just a -- it's like a television. Have you
24 seen an ECDIS?

25 Q. Yeah, a few of them, but I'm starting to see other ones

1 also that just have buoys but don't have -- you know, it's not
2 like looking at a defense mapping chart or --

3 A. You can -- yeah, there's a number of things, adjustments
4 on them. You can take the draft off. I mean the depth off. You
5 -- there's a number of things you can remove from the screen.
6 Because sometimes there's too much information on it. If you get
7 all the soundings and -- there could be too much. So I know ships
8 have the ability to remove some things, but I don't know exactly.
9 I know they can remove the soundings.

10 Q. And, Captain, and -- just in your opinion, what --
11 what's more accurate, the radar or ECDIS?

12 A. I trust the radar more -- just because I've used the
13 radar, you know, for most of my career; and the ECDIS is a
14 relatively new thing, and I usually use it as a check, you know,
15 as a second, as a back-up to the radar.

16 Q. And what did you use to anchor the vessel after the
17 allision?

18 A. Radar.

19 Q. Even though you didn't trust it going through the
20 bridge?

21 A. Well, because the -- part of the island showed up fine.
22 Where I was going, you'd have to see the chart of the island, has
23 a pretty sharp corner on it.

24 Q. And I, I appreciate your consideration. You know, a lot
25 of this is because I don't have the chart in front of me.

1 A. Yeah.

2 Q. I'll get to see one tomorrow. It might be outdated
3 because it's an old chart after all, but I'll take a look
4 tomorrow.

5 A. Yeah. But there hasn't been much change.

6 UNIDENTIFIED SPEAKER: Of the island or the bridge.

7 MR. COTA: Yeah. They put the island down for the 1939
8 World's Fair. So it's been there for awhile.

9 BY MR. JONES:

10 Q. Hopefully the corrections we have won't be too, too out
11 of date either.

12 A. Yeah, that's -- yeah, that's always a concern to the
13 American chart.

14 Q. You, you've mentioned that, that was pretty lengthy
15 master pilot exchange you had with the Captain. Did you read it
16 verbatim like that to him or did you just hand him one?

17 A. No. I, I handed it to him, and asked him if, you know,
18 he looked at it. I don't know how much he went into it, but I, I
19 did say do you have any, do you have any questions?

20 Q. Okay.

21 A. And he said no. So whether he understood it or not, is
22 another question.

23 Q. But when you were talking about the, the ECDIS and the
24 triangles on the, the bridge, he understood you enough to point
25 out that they were the center of the bridge?

1 A. Yes. Yes, he did -- yeah. He had no problem with that.

2 Q. And you're, and you're sure he meant the center of the
3 bridge or the center of the span?

4 A. I said the center of the Delta Echo Span. I said in --
5 show me on this electronic chart where the center of Delta Echo
6 Span is, and I asked him that three separate times, last of which
7 just before we hit the bridge or -

8 Q. And do you know how many times --

9 A. -- each time he pointed to the exact same spot and said
10 this is the center.

11 Q. I apologize, Captain, I -- it's probably, it's probably
12 very extensive speaker and sounds like a wind tunnel in there. I
13 don't know if someone is moving anything.

14 UNIDENTIFIED SPEAKER: If you'd go ahead and repeat
15 that, Captain.

16 MR. JONES: That's okay. I've got it.

17 UNIDENTIFIED SPEAKER: Okay, or repeat the question.

18 BY MR. JONES:

19 Q. I just, I just had asked, you know, if this -- how many
20 times that you know of has this Captain of this vessel been in and
21 out of the harbor?

22 A. Oh, I have no idea.

23 Q. But to your knowledge, or to your satisfaction, he was
24 putting out -- he was pointing to where the center of the bridge
25 was on his ECDIS?

1 A. Yes. I figure this is his piece of equipment. He works
2 with it every day. He's familiar with it. I'm not. That's why I
3 asked him.

4 Q. Okay.

5 A. You know, it's his ship, his equipment, you know, it's
6 his obligation to be familiar with it. I see probably 10
7 different ECDIS during a week.

8 Q. And --

9 A. And believe me, they are not the same. So that's why I
10 asked him several times.

11 Q. And physically, did those red triangles look like the
12 same spot you've seen on other ECDIS?

13 A. I have never seen a red triangle on any piece of
14 navigation information, electronic, paper or otherwise. Nothing
15 that shows on this diagram, the photo they have of the electronic
16 chart that the Coast Guard has here. I don't know if they've sent
17 one to you or -- but I've, I've never seen that anywhere on any
18 chart at any time. That's why I asked him, I said, what does this
19 mean?

20 Q. And just -- in going back to when you first started
21 realizing that the radar picture was say low confidence, was there
22 any way you could have stopped the vessel at that time or slowed
23 down in the --

24 A. No.

25 Q. -- channel?

1 A. No.

2 Q. You've gotten that tug to assist or --

3 A. I don't think he could have stopped us in time, and I
4 think he would have made us swing more into the tower than away
5 from the tower. And we might have been going -- if we were making
6 9 knots at that time, he couldn't have had too much of an effect
7 anyway.

8 Q. Okay.

9 A. I think we got to a point of no return, and he couldn't
10 have -- we couldn't have stopped, you know, if we'd gone full --
11 stern or anything. I think it would have been much worse.

12 Q. Okay, well, all right, Captain, that's all I have.
13 Again I thank you for putting up with me running blind here, but I
14 do appreciate your, your time and, and the effort you've given
15 here. Thank you.

16 A. Hope to figure out what happened.

17 BY MR. MEADOWS:

18 Q. Got a question. I'm Meadows. Looking at the
19 reproduction of electronic chart there, Captain, is that the same
20 presentation or do you recall on the day of the allision, the
21 morning of the allision? Have things been changed or are
22 different in any way?

23 A. Well, I didn't pay too much attention to it, but it
24 looks, you know, looks okay, you know, I --

25 Q. -- is there any differences in the presentation there

1 from what you saw the morning of the allision, if you know?

2 A. No, not that I can, not that I can tell readily. It
3 looks, it looks like what was on the screen, but I can't, I can't
4 verify the courses or anything, but the, you know, the channel
5 looked like it's in the right place and everything else.

6 Q. -- symbols.

7 A. Yeah, the, you know, the buoys for the, for the symbols.
8 Everything but the markings on the bridge.

9 UNIDENTIFIED SPEAKER: -- pass it along to --

10 BY MR. HOLLY:

11 Q. Captain, my name is Rick Holly with Fish and Game. I
12 just have a couple of quick questions. I hate to belabor this
13 radar question, but you, you mentioned that there were two
14 separate radars.

15 A. Uh-huh.

16 Q. Is that correct?

17 A. Yes.

18 Q. And there are two separate displays?

19 A. Yes.

20 Q. And could you explain -- and normally my understanding
21 of different radars or systems, when you're having a problem with
22 a couple radars, one thing that you might do is have some kind of
23 a test that would compare like ranges. What was the range area
24 between the two radars? Did you, did you do anything like that?

25 A. What do you mean range --

1 Q. Oh, okay.

2 A. I don't even understand the question.

3 Q. Okay. If I have radar one and radar two --

4 A. Yes.

5 Q. -- normally there's a difference in the range. Could be
6 100 yards, could be 50 yards, could be 50 feet.

7 A. You mean the position of the scanner on the ship?

8 Q. No, the position of the range and the radar. You're
9 reading point -- like .33 miles.

10 A. Right.

11 Q. Both radars read the same?

12 A. I was only using one.

13 Q. Okay.

14 A. Yeah. You don't usually go back and forth between both
15 radars and set 33 on this and --

16 Q. No, but before you get underway you might. If you were
17 having problems --

18 A. Yeah, but you don't have to when -- when you're
19 navigating like that, you don't between radars --

20 Q. I understand that.

21 A. That's kind of a silly question, I think, but no.

22 Q. Okay. So there was no comparison of radars at the pier?

23 A. Yeah. Oh, definitely. I compared -- I tuned them. I
24 reworked the gain and, yeah, I spent time on both radars. They
25 were both unacceptably tuned and adjusted.

1 Q. Okay.

2 A. As far before I left the dock, they were terrible. They
3 were completely out of tune and --

4 Q. Did you happen to lay a range on a particular point, say
5 the island with one and the other radar, and see if it was the
6 same?

7 A. No.

8 Q. Okay.

9 A. I can also say I've never done that, so.

10 Q. Okay. What's, what's the pier heading on berths 56 or
11 the channel? The channel --

12 A. I'm not sure what the pier thing is, but steering down
13 the channel is somewhere between 285 and 289 depending on the
14 current or which part of the channel you're in, and that's usually
15 what you steer until you get up in here to -- on the way to make
16 the turn to go out of the Bar Channel.

17 Q. So you're talking like a 35, 40 degree course change
18 from the time you're heading out of the channel until the time
19 you --

20 A. Going out of the channel, and again where you're leaving
21 the Bar Channel as to, to exit the Bar Channel, I usually come to
22 250. So I'm coming from roughly 290 to 288, somewhere in there,
23 to 250, 245, depending on the current and --

24 Q. And then come --

25 A. And then you get -- when the bridge opens up, then you

1 come starboard and go through the middle, go, go through the
2 bridge.

3 Q. Okay. So that's about a 90-degree course change then.

4 A. Well --

5 (Simultaneous comments.)

6 Q. And then I just wanted to make sure I got this straight.
7 So you're coming from a, about a 250 heading, somewhere in that
8 area. You see the -- your range marker .33 and then you're going
9 into the turn?

10 A. Right.

11 Q. Okay.

12 A. We might have been still swinging to 250. I don't
13 remember if I gave course of 250. You know, I, I don't remember
14 what course, you know, I gave them or if I said steady, but I know
15 it wasn't 210 or 220.

16 Q. Okay. What's -- and, and normally, if I heard you
17 correctly, you didn't remember what the letter orders were. I
18 guess we can find that out, but normally is that 10, 15, 20 degree
19 rudder change in a normal course change?

20 A. I usually do it with most ships with 10 degrees rudder.
21 I indicated, well, this is a little heavier ship, so I may have
22 given it 20. I didn't -- it depends on how fast you're going.

23 Q. Sure.

24 A. How deep you are.

25 Q. Sure.

1 A. And different ships handle better than others, so, but
2 traditionally, I can make that with 10 degrees rudder.

3 MR. HOLLY: Okay, that's all I have.

4 BY MR. MOLONEY:

5 Q. I've got a few things here. Pat Moloney, Pilot
6 Commission. With your testing of the ARPA prior to getting
7 underway, could the proximity to the gantry cranes have interfered
8 with the acquisition of the targets?

9 A. Well, I don't think so because I plotted, you know, our
10 ferry boats coming in and out of the estuary. One was coming I
11 believe in and one was going out, and I plotted both of them or
12 tried to, and it didn't acquire either one of them. And they're
13 on this side, and the cranes are here. And the main target that
14 we were plotting was the Solano coming through. He had come
15 through Gulf of Teltower, and traffic had reported, you know, he's
16 coming through, and he's coming up the estuary. So I had, you
17 know, the NRA, I, you know, I said, well, you know, we, we can't
18 go until he goes by anyway, so the more we wait, the better the
19 weather's getting. You know, everything is on our side. But I
20 did want to plot him so I would know what time passing, you know,
21 pass through. And we tried to acquire, acquire, acquire, acquire,
22 and it didn't. And about off the end of Seventh Street, somewhere
23 in here, we acquired it, and I had a vector and I got quarter
24 speed and those -- about somewhere in this area.

25 Q. Would you describe what area you --

1 A. Off of Seventh Street Terminal. Somewhere between
2 Seventh Street Terminal and the entrance of the estuary.

3 Q. So that's outside the shadow of the gantry cranes --

4 A. Yes.

5 Q. -- that might have been alongside --

6 A. Yes. Everything was to the port of the cranes. And we
7 plotted them up here, and then I -- when he was coming up here to
8 use as a visible check, when I could see him, I went on the radar
9 and checked the distance, and I forget exactly what it was, but it
10 was greater than a quarter of a mile when -- I forget if it was,
11 you know, three tenths, 3.5 or something, but you could see him,
12 and that -- I used that as a figure probably the most accurate
13 judgment of the visibility, because I could see across to Alameda,
14 and but as you know the land's flat over there, how far you see.

15 Q. Yes.

16 A. And the same at the container terminal. I could see
17 into the container terminal, but, you know, rows and rows of
18 boxes. How far in -- quarter of a mile, half a mile.

19 Q. Okay. Next question. As you were approaching the
20 bridge when you came hard right and full ahead, did you consider
21 what the tug on the tether would do to the ship or what this might
22 do to the tug?

23 A. To be perfectly honest, at that point I had forgotten
24 all about the tug.

25 Q. Perfectly honest answer. I, I'm just saying --

1 A. No, I didn't even remember the tug until we were
2 anchored, and then I looked behind me was the oil and the tugboat
3 back there still, I said, oh, Jesus, you know, I'm sorry, I, you
4 know, you all right and everything. But no I had kept them for
5 insurance to go through there, but then I didn't -- everything
6 looked good, so, you know, I felt no need to use them then and
7 everything looked bad and he went right out of my mind. I, you
8 know, so I'm sure he has an interesting story on his end.

9 Q. Okay. Next question. And this isn't so much a question
10 for you, but I toss it up for consideration by the Committee.
11 Back in the fuzzy recesses of my mind, and there are a few of
12 them, it occurs to me that a RACON flashes when interrogated as
13 opposed to a constant squawk. When you're dealing with something
14 up on the bridge way up high like that, it may be that the beam of
15 the radar on a ship at the surface may not reach high enough to
16 interrogate. You might be approaching the Bay Bridge and not
17 getting a bounce-back from the RACON, but you might get it from
18 the Golden Gate Bridge. And I just toss that up as something that
19 --

20 A. And I, I'm --

21 Q. -- take into consideration. RACONS have been getting a
22 bad knock around here.

23 A. I'm assuming somebody has checked whether the RACON was
24 working or not. It might not have been working.

25 Q. That, that may have been the case though.

1 A. Has anybody checked that?

2 Q. Well, that's why I bring it up.

3 MR. BOWEN: That's for action for me, Larry Bowen, and I
4 haven't -- still working on that.

5 UNIDENTIFIED SPEAKER: You know something like the Sea
6 Boy --

7 UNIDENTIFIED SPEAKER: Oh, yeah.

8 UNIDENTIFIED SPEAKER: -- you've got the RACON down at
9 sea level --

10 UNIDENTIFIED SPEAKER: Yeah.

11 UNIDENTIFIED SPEAKER: -- and it's going to --

12 (Simultaneous comments.)

13 BY MR. MOLONEY

14 Q. Moving on --

15 BY MR. MEADOWS:

16 Q. What is your knowledge of this particular RACON? Is it
17 one that you have to inquire or interrogate to get a reading from
18 the thing or --

19 A. No. I think what Pat means they just pick it up by a
20 certain -- don't touch anything to say okay, I want to see the
21 RACON --

22 UNIDENTIFIED SPEAKER: The RACON talks back.

23 UNIDENTIFIED SPEAKER: They appear -- yeah. When they
24 get a radar signal, they send a signal back.

25 BY MR. MOLONEY:

1 Q. Easy question here. Yes or no. Was there a trainee
2 aboard?

3 A. No.

4 Q. Thank you. Is there a minimum visibility requirement
5 for non-tank vessels? Asking a similar question but phrasing it
6 somewhat different.

7 A. 15 knots in the Bay.

8 Q. Visibility.

9 A. Oh, visibility, oh, sorry. Not that I recall.

10 Q. Okay. Were you able to visually verify the accuracy of
11 the heading flasher on either or both of the radars?

12 A. Well, they looked in line, you know, with the dock. I,
13 I didn't get technical. I didn't measure exactly, but they
14 appeared correct as the ship was alongside the dock. I mean it
15 wasn't pointing to the dock or out into the Bay or something. I,
16 I'm going to say I don't remember the exact course line of the
17 dock.

18 Q. It looked okay to --

19 A. Yeah, oh, yeah.

20 Q. -- a degree or two?

21 A. Yeah, it looked satisfactory, yeah. The heading flasher
22 I didn't think was a problem.

23 Q. Okay. I know that things -- time was kind of
24 compressing here for you, but do you have a feel for how much
25 time elapsed between the VTS 235 degree report and the lookout

1 report -- a

2 A. No. They -- hopefully they have that written down
3 somewhere. Because like I say, it was in Chinese. I'm assuming
4 he was reporting to the bridge because we hadn't heard from him
5 previously. I actually I mean it was just a voice on the radio.
6 I'm assuming it was the bridge and not a lookout. It could have
7 been the engine room, but I -- because the tower was there, I'm
8 assuming -- and he was standing up there and probably didn't want
9 to die, may have --

10 Q. When you asked the Captain to show you the center of the
11 span, was it to say, you know, what are the symbols or did you not
12 look at the ECDIS to verify for yourself there's the island?
13 Obviously you can see that. Here is the tower. Here is the
14 tower. Here's the Charlie Pylon.

15 A. No, I didn't measure that --

16 Q. Did you know that the captain and the crew had been on
17 the ship for two weeks?

18 A. I just found that out last night.

19 Q. And in previous comments you noted that the radar worked
20 all right as you came up here on the corner of TI. You didn't
21 have any problem discriminating that corner.

22 A. But that's an entirely different type of target than the
23 bridge.

24 Q. Yeah.

25 A. Bridges are different targets than islands.

1 UNIDENTIFIED SPEAKER: Once again, TI being Treasure
2 Island.

3 BY MR. MOLONEY:

4 Q. Treasure Island as opposed to Yerba Buena.

5 A. Yes.

6 MR. MOLONEY: That's all I have. Thank you.

7 UNIDENTIFIED SPEAKER: Okay.

8 Next.

9 Brian --

10 (Simultaneous.)

11 UNIDENTIFIED SPEAKER: I'm sorry. Let's go and continue
12 with the interview, please.

13 MR. COTA: I don't --

14 UNIDENTIFIED SPEAKER: Do you need a break, sir?

15 MR. COTA: No. I --

16 UNIDENTIFIED SPEAKER: Anybody in desperate need of a
17 break? We can push on then.

18 MR. COTA: Yeah, I --

19 UNIDENTIFIED SPEAKER: Any questions?

20 MR. AGA:

21 UNIDENTIFIED SPEAKER: Just identify yourself.

22 BY MR. AGA:

23 Q. Captain, this is Captain Aga from Fleet Management.

24 A. Yes.

25 Q. We are the technical operators of the ship. Do you

1 recall at what point did the radar start fading? You mentioned
2 started failing --

3 A. Well --

4 Q. -- after you came out of the estuary and went into the
5 port turn or was it after you completed the port turn and went
6 into the starboard turn?

7 A. No. It's -- I used it to get the measurement of the .33
8 off the island, and then I looked at the bridge, and the picture
9 was -- the bridge was distorted. I mean the bridge, like I said,
10 the bridge was -- I, you know, I don't know what you would call
11 something like that, but the bridge was like twice as wide as it
12 usually is, and, you know, no RACON, no towers, no buoys, nothing.
13 So I, you know, I lost trust in it.

14 Q. Could you --

15 A. Or faith in it.

16 Q. One following question. Do you think the rate or turn
17 could have caused this -- you know when you turn very fast the
18 radar image on a low range.

19 A. We weren't turning that fast, I don't think. You can --
20 I'm sure it will be on the record, but I, I've seen smear on a
21 radar, but I can -- usually not on a bridge, on a fixed bridge,
22 you know. It can smear on other things, but not usually. I've
23 never seen it smear on a bridge.

24 Q. Last question. If --

25 A. Many as you want.

1 Q. If the radar had started going back at the start of the
2 port turn after you left Treasure Island, after you left the
3 estuary, could you not have considered going to an anchorage
4 because the radar went bad because of safety issue? You could
5 have called the MSON, said the ship does not have good radar.
6 Could you have done that?

7 A. I don't think there was enough time to turn the ship.

8 Q. Thank you, sir.

9 A. I thought we had too much speed, and I was already
10 coming right. I, I didn't think I could get it back far enough
11 left to miss the bridge. You know, I figured that probably would
12 have broadsided the bridge. So I made the decision, and I thought
13 I was clearing the bridge. From what I was looking at, I cleared
14 the center.

15 Q. Okay.

16 A. Or what I was told was the center.

17 BY INVESTIGATOR CURTIS:

18 Q. Brian Curtis, Captain. Just a couple, and we'll go wrap
19 this up. But post-collision, did you know of any indication or
20 did anything regarding as to what the engineering department was
21 doing and in regards to pumping the tanks down, of any --

22 A. I asked the, the Captain right after we hit the bridge
23 to start sounding the tanks, which was just kind of -- if we ever
24 run aground or anything, that's just kind of -- start sounding
25 tanks, and he said they did. But they didn't give me any -- by

1 the time I left at 9:45, nobody said, you know, what they found,
2 if they found a hole in the tank or he never responded to me, you
3 know, but when I looked over side, obviously there was a hole in
4 the tank, but I never heard that from the Captain, you know. They
5 were -- and I'm sure it takes awhile to run up and down the side
6 of the ship sounding tanks, and I've heard that in the collision
7 the sounding tubes got damaged, so they couldn't, you know, the
8 sounding tube wouldn't -- the tape wouldn't go down so they
9 couldn't -- they weren't getting an accurate measurement in what
10 was in the tank. But the pilot boat had come along to put another
11 -- the other pilots on, said that one was running out, but it had
12 stopped running out by the time they came aboard the ship.

13 Q. And what time of the day --

14 A. You'd have to check the ship's log on what time they got
15 -- I don't remember what time they -- but they -- because they
16 were -- said they were surprised how fast it -- that it stopped,
17 because I don't know who told me this, but they said they, you
18 know, transfer, immediately started transferring fuels out of the
19 tank, you know. I was stunned to find out there was a fuel tank
20 that far forward myself as opposed to a double bottom or aft or
21 somewhere else.

22 Q. Typically in investigations we our investigations we go
23 back -- I realize that several days had passed since the incident,
24 but we like to get a 72-hour profile of the days leading -- I know
25 it's several days have passed, but I guess I'll phrase it this

1 way. Did you -- I mean going, going to sleep at night, all that,
2 all that, was it pretty much normal for you? Any life changing
3 events in those three days previous to it or --

4 A. No, no, and --

5 Q. Medical conditions or any of that?

6 A. I have a slight case of sleep apnea, so I use CPAP
7 machine at night, and I mentioned to -- an operator asked me, you
8 know, if I'm on any prescription drugs, and I take a drug called
9 Synthroid, which is for thyroid, low thyroid; and Provigil, which
10 is a, a drug associated with the sleep apnea. It was prescribed
11 by the sleep apnea people. Supposed to help me stay awake.

12 Q. But your sleep-wake cycle was pretty much normal for
13 that, that period? Wasn't any sleep discrepancy or --

14 A. No, but, you know, our schedule shifts daily. I mean
15 one day you're going to work at noon, the next day you're going
16 two in the morning, then four in the afternoon. You know, we work
17 in rotation, so --

18 Q. Do you recall -- did you work the day before that or do
19 you recall that?

20 A. Oh, yeah, oh, yeah. That was the last day of the work.
21 I worked -- we work Wednesday to Wednesday, and that was the last
22 day of the week, so I worked from the Wednesday before that.

23 Q. Okay. So your last --

24 A. It was --

25 INVESTIGATOR CURTIS: -- have that somewhere?

1 INVESTIGATOR ROTH-ROFFY: I don't know. Can we get the
2 Captain's rotation schedule when he was --

3 (Simultaneous comments.)

4 UNIDENTIFIED SPEAKER: The dispatcher has all that
5 stuff.

6 INVESTIGATOR ROTH-ROFFY: Okay, we'll get that. It's
7 just been some days since --

8 MR. COTA: Oh, yeah, no. He has the list of when I
9 went, when I got off. They have all that. I didn't -- I don't
10 write it down, but I had, you know, I don't feel fatigue was an
11 issue. I --

12 BY INVESTIGATOR ROTH-ROFFY:

13 Q. Okay, yeah, Tom Roth-Roffy. I just wanted to explore
14 that fatigue issue a little bit more. You went -- you say you
15 woke up about 4 or 4:15 in the morning. What time did you go to
16 sleep that night?

17 A. I think around 9, 9:30 maybe.

18 Q. Okay, so that's about seven hours of sleep.

19 A. Yeah.

20 Q. How many hours of sleep at night do you typically get?

21 A. Usually I sleep 7, 7, 8 hours. Maybe on my week off,
22 I'm not a big, you know, I'm not a 12-hour man. I can't -- 7, 8
23 hours is usually when I just wake up.

24 Q. Okay. And then backing up, if you can recall, if --
25 before you went to sleep, what was your, your schedule? Had you

1 come off of a, of a assignment or --

2 A. Yeah. I had done a job -- I can't remember if I did a
3 job on Tuesday or the Monday. That's actually been kind of slow
4 lately so -- I, I'd hate to guess. I mean if you want to, you can
5 call the dispatcher.

6 Q. No, that's -- we can get it on his --

7 A. They have it. I mean they have the exact times, but --

8 Q. Okay, so --

9 A. -- you know, I got -- whenever I got off work, I went
10 home and --

11 Q. Okay.

12 A. -- ate dinner, and, you know, I didn't go do anything
13 exciting.

14 Q. Okay.

15 A. You know my week on, I look at my week on as my week on,
16 you know, don't plan anything, you know. I've been doing this for
17 27 years, so my wife knows, you know, we're not going to dinner
18 this week, you know, this Wednesday to this Wednesday, we're not
19 doing anything. Next Wednesday we can do things.

20 Q. Captain, just one last question just another thing we
21 typically do is get your, your -- just a rough bio, education,
22 your -- how you got to where you are today. So if you can just
23 give us a quick overview of education and professional and --

24 A. Yeah, okay. Well, I grew up in San Francisco. After I
25 graduated from high school, I went to San Francisco City College

1 for a semester, and then I decided I wanted to try going to sea,
2 so I registered in -- actually first in the SUP, Sailors' Union of
3 the Pacific, and I got a job as an estiman (ph.) -- on Tanker
4 Abalos (ph.).

5 Q. I'm sorry to interrupt. Just throw some years in there
6 too, if you could.

7 A. Oh, that's -- I got out of high school in '65. '66 was
8 the first time I went to sea. I worked on a tanker for a month or
9 so. I didn't much care for the stowage department. And then I
10 changed to the Inlanboatmen's Union because I was more interested
11 in tugboat work, and big ships didn't impress me. So I joined the
12 IBU, and then I sailed to Alaska, all up and down the West Coast,
13 South America. I made a trip to South America. And then in 1967,
14 I started at the Maritime Academy, and -- California Maritime
15 Academy. And, unfortunately, I didn't pass my algebra class, and
16 in those days, if you didn't pass a class, you were out. There
17 was no chance to make up anything. So I went back down to the
18 Union, and most of 1968 I went to sea, Alaska -- so I went pretty
19 much all of 1968 I worked going to sea and some in the harbor.
20 And then in 1969, what was affectionately known as retraining, I
21 went back to CMA and started over, and then I graduated in 1972,
22 and then I went to work in the Persian Gulf for about 22 months,
23 and then I came back and got my 1,000-ton Master's Freight Towing
24 License. And then went to work at NRC for two years. And then in
25 1977, I moved back here, and I worked on harbor tugs and ocean-

1 going tugs. I used to do both. Crawley (ph.) at that time was a
2 big international operation, so we were going all over the world.
3 And my goal was -- the reason I came to work in the harbor was to
4 become a pilot. So as I -- on my vacation, I would be riding
5 trips. In those, in those days before you could get the pilot's,
6 you had to have all your piloting. Now it's different. But I
7 spent most of my vacations riding ships, you know, and then taking
8 tests and getting my pilotage. And in those days we only had to
9 get it to Antioch. So I have pilotage to Antioch and Redwood City
10 and everything in between, but I don't have Stockton and
11 Sacramento. And then I got in the harbor pilots, and February 1,
12 1981, and been there ever since.

13 INVESTIGATOR ROTH-ROFFY: Okay, that's all I have. I'll
14 go around, if anybody has anything else.

15 UNIDENTIFIED SPEAKER: Could Larry jump in
16 before --

17 MR. BOWLING: If you don't mind, I just have a few
18 questions, Captain. Larry Bowling with the NTSB. I'm the junior
19 investigator here.

20 BY MR. BOWLING:

21 Q. I just want to explore a few areas predominantly with
22 your interaction with the towing vessel, you made the statement,
23 and don't let me put words in your mouth, but basically you'd
24 forgot about the towing vessel until after the bridge allision,
25 something to that effect. Do you recall when the last order or

1 direction was given to the towing vessel prior to the allision
2 with the bridge and what that direction was on your behalf?

3 A. Yeah, I had him after the -- I had him pull me out to
4 the center of the estuary, and I said, you know, shift to the
5 center -- aft, and that was it.

6 Q. And that was your last direction to --

7 A. I never, I never felt I needed him, so I never gave an
8 order, and when things got ugly, unfortunately I forgot about him.

9 Q. Now was he running freely alongside the vessel or --

10 A. No, no. He was, he was tethered to the stern.

11 Q. Okay. So he --

12 A. So he --

13 Q. -- was tethered --

14 A. -- slow me down or do, you know, but at this point he
15 couldn't slow me down.

16 Q. Do you know how much line you had out?

17 A. No. You'd have to ask him. I couldn't -- you can't see
18 him from the bridge because of all the boxes behind you. I can't
19 see him at all.

20 Q. Okay, so at that --

21 A. I just know he's back there, you know.

22 Q. Okay. That was the last communication you recall before
23 the allision with the bridge between you and the towing vessel?

24 A. Yeah, I -- the only thing I remember is noticing the
25 anchorage and saying, sorry, because he had another job. He told

1 me earlier I've got another job. So I, you know, I apologized to
2 him for forgetting all about him, and hoped he was, you know, was
3 all right, and then I said take, you know, you can take your line
4 in and go.

5 Q. Okay. What --

6 A. I don't recall -- I didn't use him anywhere during the
7 transit.

8 Q. Okay.

9 A. As I recall.

10 Q. What level of interaction did you have with the operator
11 of the towing vessel prior to departing berth, were there any
12 exchanges with your intentions and what you needed from him
13 or --

14 A. Well, I told him where to, you know, where to make pass
15 on the ship, and I asked him when the Solano and the two barges
16 were going up the estuary, I asked him to let him -- let me know
17 when they were clear of him because they have to slack out line to
18 pull you off the dock. So I didn't want have him pull himself out
19 in front of the second barge, so, so with that he called and said,
20 okay to pass. So and we started to depart.

21 Q. Okay. And I --

22 A. As I -- you know, I gave him, you know, a -- you know
23 easy, then work up to half and then full and I think I changed
24 back to easy, and I just -- you have to match the bow thruster,
25 but with the tug so the ship comes off, you know, parallel, not

1 all out of whack.

2 Q. It's my understanding the name of the towing vessel is
3 the Revolution --

4 A. Yes.

5 Q. -- correct? Are you familiar with any of the ship's
6 characteristics on the motor vessel Revolution? Have you used
7 them before?

8 A. Oh, many times, yes.

9 Q. How many times do you think?

10 UNIDENTIFIED SPEAKER: She's one of the newest boats on
11 the --

12 MR. COTA: Yeah, she's only maybe two or three years
13 old. That's a tough one, I --

14 BY MR. BOWLING:

15 Q. Okay. It --

16 A. You know, smaller than a house, bigger than a bread box,
17 you know.

18 Q. Okay. In your opinion adequate horsepower --

19 A. Oh, yeah.

20 Q. -- and maneuverability for --

21 A. Yeah --

22 Q. -- the job?

23 A. And a good operator, yeah. I had no problem with the
24 tugboat.

25 Q. Okay. What was your interaction with the towing vessel

1 after the allision? Once you recognize it, you went out on the
2 bridge, said, oh, I've got a towing vessel -- there, what -- can
3 you walk me through your interaction with the operator at that
4 point?

5 A. I believe I apologized to him for forgetting, forgetting
6 about him, and said, okay, you can take your line in, and I told
7 the ship to, you know, let the tug go.

8 Q. Okay. Were there any comments what you did then? I
9 assume that was VHF, via VHF?

10 A. Yeah, yeah.

11 Q. Was there any return from the uninspected towing vessel
12 as to feedback?

13 A. No, he didn't mention anything about, gee, you almost
14 killed me or, you know --

15 Q. Okay.

16 A. -- we tipped over. No, he didn't say anything. He said
17 thanks, you know, and goodbye, you know.

18 Q. Okay.

19 A. Yeah, and -- yeah, he didn't say boo, you know.

20 Q. Thank you, Captain.

21 A. I'd like to meet him some day and talk to him, but I
22 don't even know his name.

23 INVESTIGATOR ROTH-ROFFY: Rob, you have any other
24 questions?

25 UNIDENTIFIED SPEAKER: Just one quick one.

1 BY UNIDENTIFIED SPEAKER:

2 Q. Captain -- I just found out the crew of the vessel when
3 you boarded in the, the rudeout, did -- give an indication of, you
4 know, were they efficient, professional? I mean confident?
5 Their, their interaction, the bridge team?

6 A. They seemed to be positioned in the proper places, and,
7 you know, confident. I can't tell from --

8 Q. Okay. I mean just, you know, just trying to get a feel
9 for their demeanor. You're, you're our --

10 A. Yeah. I mean they didn't -- I mean they didn't seem
11 terrified or --

12 Q. How, how about after the allision? Anything change?

13 A. No. They were -- I was actually amazed how calm they
14 were. There wasn't a comment made. The Captain didn't jump up
15 and down or try to strangle me or even come up and badmouth me or
16 -- he actually made no comments to me. I apologized to him, but
17 no, nobody came up and said, you know, you're an idiot or what are
18 you thinking here. No, they were -- they had nothing to say, but
19 like I say, I'm not real sure of their English proficiency.

20 Q. Okay, thank you, Captain.

21 INVESTIGATOR CURTIS: Brian Curtis.

22 Any, anybody else? Tom Roth-Roffy?

23 INVESTIGATOR ROTH-ROFFY: Yeah, Tom Roth-Roffy.

24 BY INVESTIGATOR ROTH-ROFFY:

25 INVESTIGATOR ROTH-ROFFY: That was Brian Curtis.

1 Q. I'm sorry for repeating the same questions, but --

2 A. Go ahead. I'm here to --

3 Q. -- appreciate your patience with us. But you mentioned
4 that you were -- as you're using that .33 radar, electronic range
5 ring to go around the Island.

6 A. Variable ring.

7 Q. Which radar were you referring to at that time?

8 A. I don't remember. I'm sorry. I wasn't -- you know, I
9 was going between both of them to see which one had the best
10 picture, and I, I don't remember which one I used.

11 Q. Okay, but I, I believe you did say that both radars
12 images deteriorated in a similar manner.

13 A. Yeah. I didn't -- the bridge got too fuzzy for me. I
14 -- and I went to the other one and it was distorted or like I say,
15 I've never seen it happen to a radar, let alone two.

16 Q. And about how long, if you can estimate, did that
17 distortion persist or last?

18 A. Well, I left the radars, and I never went back to them
19 until we anchored because I, I figured they were useless.

20 Q. How long --

21 A. So I don't know how long --

22 Q. So --

23 A. I, I stopped using them, and shifted to the other piece
24 of equipment because I thought it was more reliable.

25 Q. So --

1 A. So I --

2 Q. -- so when it distorted, you instantly went to, to
3 the --

4 A. Well, I went to the other radar to see if was getting
5 better, and it didn't look any better. So then I just shifted to
6 the electronic chart.

7 Q. So that, that total time before you went to electronic
8 time [sic] from the time you noticed a distortion until you were
9 away from the radars, about how many seconds would you -- I'm just
10 trying to get an idea of how long that distortion persisted in, in
11 your recollection.

12 A. Oh, I -- boy, I don't -- 30 seconds. I mean I don't
13 know. I looked at it. I didn't -- it didn't look right to me. I
14 went to the other one. It didn't look right to me. I said, you
15 know, I mean I'm --

16 Q. Okay.

17 A. -- full ahead or I'm going towards the bridge. I'm not
18 going to start trying to retune the radar at that point. And I
19 figured the electronic chart, I mean these things are supposed to
20 be magic.

21 Q. Regarding the RECON and Captain Moloney's comments
22 about, you know, the angles and stuff, in your experience going
23 under that bridge, you say you've been -- how many times have you
24 been under that bridge?

25 A. Thousands.

1 Q. Thousands of times. The RACON --

2 A. The RACONS aren't -- I forget what they put them in, but
3 they're not --

4 Q. Oh, it's --

5 A. -- I mean they --

6 Q. -- the --

7 A. -- RACONS 20 years ago.

8 Q. Okay. How, how long?

9 A. I'd have to look that up.

10 Q. Five years or --

11 A. I don't --

12 Q. So mid-'90s?

13 A. That's as good as guess as any.

14 Q. So about 10 years the RACONS have -- in those 10
15 years --

16 A. But there have been a number of problems with RACONS in
17 this day on -- because they put them on all the bridges and
18 they're not always, you know -- some show up better than others.
19 I don't know if it's different companies or maybe the radar on the
20 ship, but some of them show up almost constantly almost every
21 sweep and some, you know, every 10 sweep. Some never. You know,
22 so I, I don't know if it's the radar or the RACON -- you know
23 what, you know, makes -- I know the radar triggers it somehow, but
24 I don't know enough about electronics to know.

25 Q. Can, can you quantify a little bit? You say some it

1 shows up every sweep some not, but is it half of the ships that
2 you get a good RACON consistently or is it a lower percentage or
3 higher percentage?

4 A. On the Bay Bridge, I'd say less than 50 percent.

5 Q. So to be precise, about 50 percent of the time the RACON
6 is always visible as you approach and go under the bridge on the
7 radar display?

8 A. As a rough estimate, yeah.

9 Q. Okay. So about half the time you've got a good RACON?

10 A. Yeah.

11 Q. And --

12 A. But like I say, the Bay Bridge is -- out of all the
13 bridges in the Bay, for some reason the Bay Bridge seems to be the
14 worst as far as the RACON, and, and their appearance on the radar,
15 in my experience.

16 Q. Okay. Has this problem been -- last as long as you can
17 remember or is it a recent development that the RACONS have, have
18 been inconsistent?

19 A. No. They've been fairly inconsistent, I think.

20 Q. Okay.

21 A. And then actually they've been broken sometimes for
22 months.

23 Q. But part of --

24 A. And not repaired. I don't know who is in charge of
25 repairing them, but -- they're, they're -- I'm sure there's

1 records, but they've been out sometimes for quite awhile.

2 Q. And has it been a concern of the Pilots' Association to
3 address this inconsistency or unreliability of the RACONS? Have,
4 have you --

5 A. Well, we have a Navigation Committee, and I believe they
6 -- we have a Navigation Committee and a Bridge Committee, and
7 unfortunately I'm not on either one, but they usually deal -- we
8 have one -- we used to have somebody that deals with the Coast
9 Guard relative to the bridges, and I don't know if that -- he also
10 covers the RACONS or not -- Chadwick -- I'm not sure. Maybe it is
11 Bob. But there's somebody that communicates with the Coast Guard
12 or whoever is in charge of the bridges.

13 Q. Okay. When you take ships out, do you note -- obviously
14 you can see whether the RACON is a return view. Have you reported
15 to anybody whether or not you're getting a return?

16 A. No.

17 Q. So that sort of information is -- it's not being fed
18 back for, for improvement of, of that particular navigation --

19 A. Well, I --

20 Q. Do other pilots perhaps --

21 A. -- sometimes I have, but it was mainly because fog when,
22 when it, you know, makes the biggest impression on you, but
23 talking between myself and -- a lot of pilots just don't rely on
24 it. You know, that's why I say for me for going through every
25 bridge in the Bay, I have a distance of a piece of land I use, and

1 I use a RACON if it shows up as a, as a confirmation. But I, I
2 don't use the RACON to navigate exclusively. I don't, you know,
3 they're just -- I don't consider them reliable enough to. I mean
4 it's a nice addition, and they're great when they work, but they
5 don't always work.

6 Q. What has your experience been with taking ships out
7 through this, this particular route in fog, in the similar
8 conditions that --

9 A. -- turn that off.

10 Q. You say you've been out a few thousand times. That's
11 overall. But how about in fog, in restricted visibility?

12 A. Oh, it's impossible to guess, but it's not -- especially
13 if we're bringing ships to the anchorage, it's not an uncommon
14 event at all to go to in the fog down in the anchorage, but almost
15 nobody goes through the bridge in the fog in the open. If you're
16 at the Bay Bridge, and you can't see, like if I was going in
17 instead of coming out, never. You know, this was a, you know, two
18 small turn job. But coming in is a whole different story. So,
19 you know, I don't -- but I mean I've used -- I can't guess the
20 number of times I've been through there in the fog, but --

21 Q. Fog is not an uncommon occurrence in, in the --

22 A. Oh, no, it's an annual event, winter and summer fog. We
23 have fog both times of the year. We live with fog. For is a
24 regular event.

25 Q. You made some phone calls. I believe you mentioned that

1 you had used your personal cell phone, is that correct?

2 A. Yes.

3 Q. Would it be possible to get the records of that -- those
4 cell phone calls just so that we can line up some of the events to
5 help us fill that timeline? You could, you could redact the
6 personal stuff, if you'd like.

7 A. I'm just trying to think. Is there any way to get that
8 besides the bill? You know, when the bill comes.

9 Q. You can probably get it online. And just so you know,
10 we can probably get it independently of you, but --

11 A. Okay.

12 Q. -- if, if --

13 A. I can give you my number.

14 Q. Okay.

15 A. -- and you can --

16 Q. I'll find -- if you can give me your number, and we'll
17 see what we can recover.

18 A. Yeah, you can --

19 Q. Okay.

20 A. There's nothing secret on there. So, yeah.

21 Q. Okay.

22 A. I mean there's a lot -- unfortunately there's a lot of
23 television stations and newspapers and people trying to contact
24 me.

25 Q. Right. I only have a -- I know everybody is getting

1 tired. Just couple more questions.

2 A. Oh, no. I can stay here as long as you want.

3 Q. You mentioned that the Captain didn't say much to you
4 after the allision and that you were little bit surprised at their
5 calmness, but you also said --

6 A. He was -- he went back and was doing some paperwork.
7 I'm sure he was calling his owners and --

8 Q. Okay.

9 A. -- something. I mean he was, he was busy. He was doing
10 some sort of work, you know, around the chart table or something.

11 Q. Okay.

12 A. You know, I think he was more concerned with oil and
13 everything else than he was concerned with me.

14 Q. My question though was you mentioned also that you had
15 apologized to him. Could you -- why did you do that?

16 A. Well, I don't think I was admitting guilt but the guy's
17 ship had a big hole in it, I, you know, I kind of felt it was the
18 decent thing to do, and even like I say, I didn't, I didn't think
19 I was admitting, and I'm still not admitting guilt on it. I just,
20 you know, this guy's life has just changed. You know, maybe well
21 beyond this incident. I mean he may be painting houses for the
22 rest of his life, but, you know, I just -- something horrible had
23 happened, and I just felt badly for him and myself of course, but
24 it was not an admission of guilt, you know.

25 Q. Okay.

1 MR. JONES: Tom, can I jump in with one more?

2 INVESTIGATOR ROTH-ROFFY: Yeah. Rob Jones.

3 UNIDENTIFIED SPEAKER: Fire away.

4 BY MR. JONES:

5 Q. Captain, just after Tom has talked there, I kind of came
6 up with one. Prior to the allision, did the, did the Captain or
7 the ship's crew any mention to you about anything -- course you
8 were on, the speed of the vessel, your heading for the bridge?
9 Any question or concerns on their part?

10 A. They made no comments whatsoever.

11 Q. Okay.

12 A. That I can recall.

13 INVESTIGATOR CURTIS: Brian Curtis again. Anybody else?
14 Tom, you all set?

15 MR. MEADOWS: I have a question.

16 INVESTIGATOR ROTH-ROFFY: I'm sorry. Go ahead first.
17 Then I've got one more.

18 MR. MEADOWS: Mr. Meadows, John Meadows.

19 BY MR. MEADOWS:

20 Q. Assuming that the radar is functioning properly on a
21 ship, what is the presentation as you approach the, the Bay Bridge
22 relative to the towers. What, what stands out that makes the
23 towers appear? How do they appear on the radar?

24 A. Well, on a good radar, your abutments show up because
25 they stick out some distance from the bridge, and then the buoys

1 marking the towers will show up on, on a good radar so that you
2 can see -- like I say on a good radar you can see the tower
3 itself, the bottom of the tower and the, and the buoys. So I mean
4 it's not usually that difficult to get through the bridge because
5 there's a number of items you can see, but they all became
6 invisible that morning.

7 INVESTIGATOR ROTH-ROFFY: Okay. Tom Roth-Roffy again.
8 I think I just have one last one. And I apologize for belaboring
9 this.

10 BY INVESTIGATOR ROTH-ROFFY:

11 Q. But I had asked the question about the number of times
12 you traveled this same route in similar restricted visibility, and
13 we like numbers, so --

14 A. Yeah, I know.

15 Q. -- if you can in any way quantify it. Is it half the
16 time that you go out?

17 A. Oh, no, it's not foggy, it's not foggy that much.

18 Q. Is, is that -- okay. Is it 25 percent of the time that
19 you've gone out?

20 A. No. I'd be a fool to name a number.

21 Q. It's --

22 A. I wouldn't even want to guess.

23 Q. But it's less, it's --

24 A. It's been --

25 Q. -- less than half the time?

1 A. -- 27 years of, you know -- I just couldn't guess, you
2 know. I've been through with tankers and container ships and
3 everything, but --

4 Q. But it's --

5 A. -- a pilot who keeps records. Some pilots keep records
6 of every job they've ever done and everything else, but I don't.

7 Q. Okay.

8 A. And I'm sorry I can't give you a --

9 Q. Well, I can --

10 A. I mean I -- maybe 10 percent. I --

11 Q. Okay.

12 A. -- you know, but that's just a guess.

13 Q. But it's, it's certainly less than 50 percent?

14 A. Oh, yeah.

15 Q. And it's more than one percent?

16 A. Yeah, yeah.

17 Q. Okay. So that's, that's very helpful, and thank you.

18 A. Yeah.

19 INVESTIGATOR ROTH-ROFFY: That's all.

20 MR. MEADOWS: One more question.

21 UNIDENTIFIED SPEAKER: Mr. Meadows, by the way.

22 BY MR. MEADOWS:

23 Q. You mentioned a 1,000-ton license. You've upped the
24 license to a 1,600-ton, haven't you?

25 A. Well, when the Coast Guard changed the licensing system,

1 I used to have 1,000 -- well, I have a third mate unlimited
2 license, first pilot, pilot and -- I took a test for 1,000-ton
3 freight during that period. Then when the Coast Guard changed
4 regulations, supposed to be up to 1600 tons, so I think that's the
5 license now, 1600 tons, and -- so it was -- that was a Coast Guard
6 gift, I guess.

7 Q. Okay.

8 INVESTIGATOR CURTIS: Well, Mr. Cota, Captain Cota, I
9 think, I think you've come to the end of the questioning. It's
10 been close to three hours. The time now is 1743. Close the
11 interview.

12 MR. MEADOWS: Could I have some questions on procedure?

13 INVESTIGATOR CURTIS: -- go off the record or?

14 MR. MEADOWS: Doesn't make any difference.

15 INVESTIGATOR CURTIS: Okay.

16 MR. MEADOWS: What I want to know is, it's fine, I can
17 understand why you wanted the Captain to have the records --
18 records before questioning him, but now is a good time to give us
19 copies. We've been promised copies of -- I see almost all of you
20 have copies. We'd like to have copies. Will the -- recorder --

21 UNIDENTIFIED SPEAKER: We have copies of nothing. You
22 guys have the bell book, the engine room bell and logbook. Has
23 anybody checked the equipment to see if it's been altered? I have
24 serious questions about that, because no one even got out there.
25 And as far as I'm concerned, they could have changed a lot of

1 things. They could have thrown the logbook over the side, written
2 up a new one. There's -- it wouldn't be the first time it's
3 happened. And nobody was allowed on that ship. I mean I sent a
4 surveyor down there. You sent a surveyor down there. The pilot
5 sent a surveyor down there. No one was allowed to talk to anyone,
6 see anything, go anywhere. And I just am uncomfortable with that.

7 UNIDENTIFIED SPEAKER: Okay. I --

8 UNIDENTIFIED SPEAKER: And I don't know if there's a way
9 you can check that, but I, I'm a little disappointed in the fact
10 that that was allowed to happen.

11 UNIDENTIFIED SPEAKER: okay.

12 UNIDENTIFIED SPEAKER: Because it leaves me exposed
13 where -- extremely exposed where, you know, the truth may have
14 been twisted.

15 UNIDENTIFIED SPEAKER: The least we could do is have
16 copies of the documents you have.

17 UNIDENTIFIED SPEAKER: Oh, yeah, those. But I'm just
18 curious about other things, but I don't know -- like I say, I have
19 no way of knowing if somebody can check on that, but --

20 INVESTIGATOR ROTH-ROFFY: Okay. Tom Roth-Roffy. I'll
21 try to respond as best I can. Typically when we conduct our
22 investigation, the -- we name parties to the investigation, and
23 these are agencies or companies or government organizations that
24 have a, an interest in, in marine safety and preventing future
25 accidents, and or have a technical expertise to contribute to, to

1 the collection of factual information. So that's essentially what
2 we're doing now is we've named parties. Each of the people here
3 represent the parties to our investigation --

4 UNIDENTIFIED SPEAKER: Right.

5 INVESTIGATOR ROTH-ROFFY: -- and they are assisting the
6 National Transportation Safety Board in the collection of factual
7 evidence. And so as a result of their status as parties, they are
8 permitted access to all the documents that we collect. However,
9 in general we do not name specific individuals as parties to the
10 investigation, and we do not release information in general
11 outside of our investigation until, until the appropriate, you
12 know --

13 UNIDENTIFIED SPEAKER: -- whenever --

14 INVESTIGATOR ROTH-ROFFY: However, however, I will --

15 UNIDENTIFIED SPEAKER: Let him finish. I'm still not,
16 I'm not sure he's answering my question.

17 INVESTIGATOR ROTH-ROFFY: Yeah. I'm kind of laying the
18 groundwork.

19 UNIDENTIFIED SPEAKER: You haven't so far, but --

20 INVESTIGATOR ROTH-ROFFY: I will, you know, not ever
21 having experienced a request from an individual involved in an
22 accident, I'm sorry, I don't have that answer, but I will get it
23 for you.

24 UNIDENTIFIED SPEAKER: Lieutenant Hopper did say we did
25 have --

1 INVESTIGATOR ROTH-ROFFY: Okay. The Coast Guard rules
2 are a little bit different than ours. However, I think the Coast
3 Guard is, is now participating in the NTSB's investigation, so I
4 believe the rules are going to be the National Transportation
5 Safety Board rules, and I just need to check, you know, with, with
6 my upper management on how we can share this information with you,
7 if we can. And I'll be very happy to deal with this off-line
8 further. Captain --

9 UNIDENTIFIED SPEAKER: When we -- well, when we move
10 over to the San Francisco site and my office is available, I'd
11 like to get copies of the relevant things for my investigation,
12 and at such time, you know, transfer that with your approval into
13 public domain, in which case I would just make an extra for --

14 INVESTIGATOR ROTH-ROFFY: No. Again, release of all
15 information from this investigation is strictly controlled.
16 Unless it's of a safety nature that you need to take something
17 back to your association to make safety changes, but eventually
18 all of this is going to be factual, factual information is going
19 to be released to the public, but we will control that release on
20 our schedule.

21 UNIDENTIFIED SPEAKER: -- we have to retain experts.

22 INVESTIGATOR ROTH-ROFFY: Okay.

23 UNIDENTIFIED SPEAKER: -- we can't do that with this --
24 pieces of paper.

25 INVESTIGATOR ROTH-ROFFY: Okay. Again, I'm going to go

1 ahead and go off-line because it's the -- I understand your
2 concerns, and I'd like to address them very clearly, but I'm not
3 sure we need to --

4 (Simultaneous comments.)

5 UNIDENTIFIED SPEAKER: -- Jones and Larry Bowling, thank
6 you a lot. We'll give you a call later.

7 INVESTIGATOR ROTH-ROFFY: Okay, so that will conclude
8 our discussions on-line, and it's 1740.

9 (Whereupon, at 1740 hours, the interview of Captain Cota
10 was concluded.)

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CERTIFICATE

This is to certify that the attached proceeding before the
NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF: The Investigation of the Cosco
 Busan/Bridge Allision
 San Francisco, California
 Interview of Captain John Joseph Cota

DOCKET NUMBER: DCA-08-MM-004

PLACE: San Francisco, California

DATE: November 16, 2007

was held according to the record, and that this is the original,
complete, true and accurate transcript which has been compared to
the recording accomplished at the hearing.

Katherine Motley
Transcriber