

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

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Investigation of:

M/V COSCO BUSAN/BRIDGE ALLISION
 SAN FRANCISCO, CALIFORNIA

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

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Interview of: SHUN BIAO ZHAO

Le Meridian Hotel
 333 Battery Street
 San Francisco, CA 94102

Monday,
 December 1, 2008

The above-captioned matter convened, pursuant to notice,
 at 1:00 p.m.

BEFORE: ROBERT V. COMBS

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I N T E R V I E W

(Time Noted: 1:00 p.m.)

MR. COMBS: Okay. This is a National Transportation Safety Board official interview of the witness before us now. I want to lay down some ground rules for the proceeding and how things are going to take place. We've already gone over some of this a little bit, but I want to put all this on the record.

Okay. Only the party representatives will be allowed to participate, that is to talk during the proceeding. This interview is being taped. There is a court reporter. It will be transcribed and testimony will be sworn. The court reporter will swear the witness and will swear the translator.

There will be no objections or interruptions during the interview. Again, from time to time, we will take breaks and we can deal with issues, so take notes. If there's something that you want to address at some time off the record, we can do that, but during the proceeding there should be no objections or interruptions, which is another reason for the cell phones and pagers, as well, because we want to go ahead and move through this as quickly as we can without interruption.

We will start off with Captain Rob Jones questioning, NTSB staff. Then Rob Henry will question the witness. Then Barry Strauch will ask questions, and then the party representatives will be given an opportunity to ask questions, and then that will be it for the questions. I ask each --

1 particularly, the party members -- but each of us, as well, should
2 identify ourselves on the record. State your name before you ask
3 -- before you begin asking questions so that that's clear on the
4 record.

5 We are preparing to release the report of this
6 investigation and have the Board meeting, the Sunshine Act Board
7 meeting, on January the 6th.

8 And that's all for the ground rules. Any questions?

9 MR. MEADOWS: Yeah. Is that a tape recorder on the
10 table?

11 MR. HENRY: Yes.

12 MR. MEADOWS: Are you tape recording this, as well?

13 MR. HENRY: Yes.

14 MR. MEADOWS: Well, I thought we just understood that
15 there was one official tape recorded version of this.

16 MR. HENRY: Well, this is what I'd be doing if we didn't
17 have a court reporter.

18 MR. MEADOWS: Although we do have a court reporter.

19 MR. HENRY: Well, what do you think? This is NTSB
20 property. It remains with us and if we didn't have the court
21 reporter it becomes a transcript and becomes part of the docket.
22 If you want to call it a backup, you can call it that.

23 MR. MEADOWS: Well, I see three tape recorders out here.
24 How much backup do you need?

25 MR. HENRY: Do you have a problem with it?

1 MR. MEADOWS: You don't?

2 MR. HENRY: No, I don't, not at all.

3 MR. MEADOWS: Okay. Okay.

4 MR. HENRY: It saves my batteries.

5 MR. MEADOWS: Okay. Thank you.

6 MR. HENRY: Rob Henry. I just have one clarification.

7 We're going to make -- we're going to go around twice so that you
8 will have an opportunity to follow up on your questions after
9 we've gone through the order once.

10 MR. STRAUCH: And this is Barry Strauch.

11 Can I ask everybody before you start asking questions to
12 just identify yourselves and your affiliations to help us when we
13 read the transcript later?

14 UNIDENTIFIED SPEAKER: Just for the record, Bob --

15 MR. COMBS: Yes?

16 UNIDENTIFIED SPEAKER: -- Captain Nagarajan is on the
17 line. He is having a little difficulty hearing, so if people can
18 keep their voice up that would be helpful.

19 And, for the record, we object to no objections and we
20 object to the fact that only the crew has been granted immunity
21 and not Mr. Cota, and that everyone on the ship should be granted
22 immunity and interviewed if we're going to do anybody.

23 MR. COMBS: And how are we going to deal with -- and we
24 can call him Captain Aga?

25 UNIDENTIFIED SPEAKER: Captain Aga is fine.

1 MR. COMBS: When the rotation comes around to you, are
2 we going to have him dial in on this phone?

3 UNIDENTIFIED SPEAKER: That probably -- Captain Aga, can
4 you hear us?

5 CAPT. NAGARAJAN: I can hear you.

6 UNIDENTIFIED SPEAKER: Okay. Probably --

7 CAPT. NAGARAJAN: It's not clear.

8 UNIDENTIFIED SPEAKER: Yeah, it's probably clearer when
9 it comes time for you to ask questions if we just have you call in
10 than to try to speak through my computer.

11 CAPT. NAGARAJAN: Okay. The number is 415-296-0900. Is
12 that a -- or that is the direct number in the conference room?

13 UNIDENTIFIED SPEAKER: That's just the hotel number and
14 then you just have to ask for the --

15 UNIDENTIFIED SPEAKER: There's a telephone number on the
16 device.

17 UNIDENTIFIED SPEAKER: Oh, there's a direct line?

18 UNIDENTIFIED SPEAKER: 415-343 --

19 CAPT. NAGARAJAN: 415 --

20 UNIDENTIFIED SPEAKER: -- 343 --

21 CAPT. NAGARAJAN: -- 343 --

22 UNIDENTIFIED SPEAKER: -- 4218.

23 CAPT. NAGARAJAN: -- 4218, 415-343-4218. Thank you.

24 UNIDENTIFIED SPEAKER: If that's correct. Let me just
25 see if I move this I might get a little better sound, Aga.

1 CAPT. NAGARAJAN: I --

2 UNIDENTIFIED SPEAKER: Can you hear me now?

3 CAPT. NAGARAJAN: No -- yeah, I was able to hear.

4 UNIDENTIFIED SPEAKER: Okay. Can you hear now?

5 CAPT. NAGARAJAN: Yes, okay.

6 UNIDENTIFIED SPEAKER: Okay.

7 MR. COMBS: Okay. Ready? Okay.

8 We're going to go ahead and go around table and just
9 introduce each other for now so that we know who everybody is.

10 My name is Robert B. Combs. I'm an Assistant General
11 Counsel with the National Transportation Safety Board, Office of
12 General Counsel.

13 MR. HENRY: Robert Henry, Marine Accident Investigator,
14 Office of Marine Safety at NTSB.

15 CAPT. JONES: Rob Jones, Marine Accident Investigator,
16 NTSB.

17 CAPT. WHEATLEY: Ross Wheatley, the Chief of Coast Guard
18 Investigation, Sector San Francisco.

19 CAPT. HURT: Rick Hurt, San Francisco Bar Pilots, Vice
20 President.

21 CAPT. MOLONEY: Patrick Moloney, Board of Pilot
22 Commissioners.

23 MR. HOWDEN: Jonathan Howden, Winston and Strawn,
24 representing the witness, Second Office Zhao.

25 MR. ZHAO: My name is Shun Biao Zhao. I'm the Second

1 Officer of Cosco Busan.

2 MR. ZHU: I'm Michael Yu Zhu, certified Mandarin
3 interpreter.

4 CAPT. BROWN: Steve Brown here representing the American
5 Pilots Association.

6 MR. GREENBERG: Marc Greenberg with Keesal, Young and
7 Logan, and with Captain Aga on -- representing Fleet.

8 MR. HOLLY: Rick Holly representing the Department of
9 Fish and Game, Office of Spill Prevention and Response.

10 DR. STRAUCH: I'm Barry Strauch with the Office of
11 Marine Safety at the National Transportation and Safety Board and
12 this --

13 MR. COMBS: Go ahead and go around back here, as well.

14 MR. MEADOWS: John Meadows representing Captain Cota,
15 along with --

16 MS. QUIROZ: I'm Claudia Quiroz with -- representing
17 Captain Cota.

18 MR. PAETZOLD: Raymond Paetzold, counsel for the Board
19 of Pilot Commissioners.

20 MR. MILLER: I'm Mike Miller. I am -- by the
21 Commission.

22 MR. KWAN: Kenneth Kwan. I'm the interpreter for the
23 Second Officer of the Cosco Busan.

24 MR. COMBS: Okay. That's everybody. You can go ahead
25 and swear the witnesses. Okay. You go ahead and swear the --

1 (Whereupon,

2 SHUN BIAO ZHAO

3 was called as a witness and, after having been first duly sworn,
4 was examined and testified as follows:)

5 COURT REPORTER: Please state your full name for the
6 record?

7 THE WITNESS: Shun Biao Zhao.

8 COURT REPORTER: And the spelling of the full name for
9 the record?

10 THE WITNESS: S-H-U-N, B-I-A-O, Z-H-A-O.

11 COURT REPORTER: Okay. Now I'm going to swear the
12 interpreter in.

13 (Whereupon,

14 KENNETH KWAN,

15 having been duly sworn to faithfully and accurately interpret the
16 questions propounded to and the answers given by SHUN BIAO ZHAO,
17 interpreted as follows:)

18 COURT REPORTER: You may proceed.

19 INTERVIEW OF SHUN BIAO ZHAO

20 BY CAPT. JONES:

21 Q. This is Rob Jones with the NTSB. How should we call you
22 -- refer to you, Zhao?

23 A. That's fine.

24 Q. Zhao, okay. On the morning of the accident, November
25 7th, when were you called? When did you first -- for duties?

1 A. My duty shift was from midnight to 6:00 in the morning.

2 Q. Okay. And what did you do when the pilot came aboard?

3 A. I think at the time when the pilot got onboard I was at
4 the stern of the ship standing by waiting for the ship to set
5 sail.

6 Q. Okay. And who told you to go to the stern?

7 A. Well, it is a stipulated duty of a second officer to
8 stay at the stern when we were ready to set sail, to stand by, so
9 sometimes, you know, you don't need people to tell you to go
10 there.

11 Q. Okay. So from 0600 you were off duty?

12 A. That's true. According to my schedule, I was supposed
13 to be off duty.

14 Q. Okay. And then you waited on the stern -- on the dock?

15 A. Well, from the time I got off duty until the time the
16 ship undocked I do not remember exactly what I did during that
17 time period, but normally as the second officer I was supposed to
18 stay at the stern to stand by when the ship was ready to set sail.

19 Q. Okay. When did you go to the stern? Who told you to go
20 to the stern?

21 A. I do not recall who asked me to go to the stern and I do
22 not recall the exact time I went there, but it is -- it was my
23 duty to stand by at the stern when the ship was ready to set sail,
24 but I do not -- just do not recall the time and the person.

25 Q. Okay. I understand, long time ago. All right. Do you

1 carry a handheld walkie-talkie, radio, handheld radio?

2 A. Yes.

3 Q. Okay. Did you tie up a tug on the stern?

4 A. Tie up a tug? Yes, I did at the stern.

5 Q. Okay. Did you receive orders from someone onboard your
6 vessel to tie up the tug?

7 A. Yes.

8 Q. Okay. The tug -- you're now getting ready to sail. Now
9 you let go lines? Were you told to let go lines?

10 A. We were waiting for the master's order. When we got the
11 order we just cast off the lines.

12 Q. Okay. And after all lines were cast off what happened
13 next?

14 A. After we -- after lines were cast off we were standing
15 by at the stern.

16 Q. Okay. Did anything else happen with the tug?

17 A. Nothing. Just after the cast off the line we just stood
18 by.

19 Q. Okay. Did you move the tug line later?

20 A. I think I did. I moved from one position to another
21 position.

22 Q. Okay. Did you talk on a handheld to the bridge --
23 captain --

24 THE INTERPRETER: I'm sorry?

25 CAPT. JONES: That's all right.

1 BY CAPT. JONES:

2 Q. Captain on the bridge? Did you receive orders from them
3 to move the tug line?

4 A. Of course.

5 Q. Okay. How many men were back there on the stern with
6 you when you untied?

7 A. Either two or three. I do not recall. I think two.

8 Q. Did they stay back there with you the whole time up to
9 the allusion?

10 A. I think so.

11 Q. Okay. Very good. As the ship departed, what were you
12 doing then with the watching the tug up to the allision? You went
13 back on the stern the entire time?

14 A. Correct. I was there all the time, at the stern.

15 Q. And were you watching the tug?

16 A. I wouldn't say I only look at the tug. Actually, I look
17 around and observe the environment of the stern.

18 Q. And what did you observe?

19 A. Well, we were standing at the stern and we were waiting
20 for the orders from the bridge, and we were sitting there just
21 looking around.

22 Q. Did you observe anything with the tug? Did it close or
23 farther away?

24 A. I don't recall or I do not remember clearly. Sorry.

25 Q. Okay. Did the tug look like it was having any trouble

1 to you?

2 A. I didn't feel any.

3 Q. Okay. Did the tug pass the line up to you while you
4 were at the dock?

5 A. I don't remember. I can't remember. Sorry.

6 Q. Was it an eye? Was the end of the line an eye?

7 A. What do you mean? I don't understand.

8 Q. A loop?

9 A. I really don't recall. It might be a loop. It has been
10 too long.

11 Q. Okay. All right. After -- did you feel the ship hit
12 the bridge?

13 A. I felt a little vibration. I felt it a little bit.

14 Q. Okay. Was the ship doing a lot of movement prior to
15 hitting the bridge that he noticed?

16 A. Yes, yes. I felt the ship was making big movements.

17 Q. Was it listing one way or the other?

18 A. I just felt that the ship was making wide turns.

19 Q. Okay. And were you still looking at the tug at this
20 time?

21 A. Yes, I was looking at the tug.

22 Q. And was the tug doing okay or was it having trouble?

23 A. I didn't feel that the tug had any problem. The tug was
24 just following the ship.

25 Q. Okay. If you did think the tug was having trouble, is

1 that something you would call the bridge?

2 A. Of course. If I observed any problems, I would report
3 to the bridge.

4 Q. Okay. Now is your station always docking and undocking
5 on the stern?

6 A. Correct.

7 Q. So when you left Busan and arrived in Long Beach and
8 departed Long Beach and arrived in Oakland, always on the stern?

9 A. Yes.

10 Q. Okay. Do you assist the pilot ladder at all, with the
11 pilot embarking or disembarking on the pilot ladder?

12 A. Sometimes it was the chief, chief mate, but sometimes
13 the master would give assignments because we have one officer at
14 the bow and one officer at the stern, and sometimes -- it depends.

15 If one officer has finished his duty, then probably the
16 master would assign that officer to help with the pilot ladder.
17 It depends. There is no specific person assigned to that job.

18 Q. Okay. Okay. Now let's go -- when you came into San
19 Francisco harbor, where were you during the inbound leg of the
20 Pilotage?

21 A. I do not understand. What do you mean by inbound
22 Pilotage?

23 Q. Coming into San Francisco, when the pilot came aboard,
24 where were you?

25 A. Well, I think I was at the stern, but as for what

1 specifically I was doing -- well, my station was at the stern.

2 Q. Okay. So you were not on the bridge at all with the
3 pilot inbound to San Francisco?

4 A. That, I can be a hundred percent sure. I don't know.
5 If, you know, we sail from the sea into the harbor and if there's
6 a distance from the dock, then probably -- and if I was on duty at
7 that time, probably I was on the bridge for a period of time, but
8 when the ship got close to the dock, then I would come to the
9 stern and stand by there.

10 Q. Okay. Now as second officer you make out the Voyage
11 Plan [sic]?

12 A. Yes.

13 Q. Passage Plan?

14 A. Yes.

15 Q. Okay. And you did the Passage Plan for San Francisco
16 harbor?

17 A. Yes.

18 Q. Okay. The charts that were onboard, did you draw the
19 lines on the charts from the berth out to the pilot station, from
20 the pilot station to the berth?

21 A. I would appreciate it if you can clarify. What line are
22 you referring to, which line?

23 Q. All the lines, all the courses in San Francisco harbor
24 from pilot to berth.

25 A. Well, it was not me who draw the lines because when we

1 took over the duty of the ship the previous crew have already
2 drawn the lines because it's a fixed voyage, so it's not -- they
3 did not erase the lines when they handed over the duties to this
4 crew, so it was not necessary for me to draw the lines.

5 Q. Did you check those lines for accuracy?

6 A. Well, I took a brief look of the chart, of the lines,
7 but basically I trusted the previous crew and I believed that
8 those lines were accurate, and I also felt that when the pilot got
9 onboard he would have his own passage in his mind.

10 Q. Okay. The lines that you drew -- that were on the
11 chart, did you go over that with the captain -- with the master?

12 A. I don't think so, maybe not. The chart was on the
13 table, but I don't know if the master had reviewed the chart or
14 not. I did not discuss that with him.

15 Q. Okay. As long as we're -- let's talk about the Safety
16 Management System, SMS. Do you have a Passage Planning Appraisal
17 where you go over all this with the -- yourself and the master?
18 Did you do that?

19 A. I don't think so, maybe not.

20 Q. Well, I'll just show you -- this is from your ship, the
21 checklist that you signed and the master signed.

22 MR. COMBS: Rob, would you identify it?

23 CAPT. JONES: That's just Checklist Number 13 for the
24 Passage Planning Appraisal.

25 BY CAPT. JONES:

1 Q. Now would you agree that that's your document or that's
2 your signatures?

3 A. Yes.

4 Q. Okay. Now to what extent when you draw up these charts
5 do you show the master what you've done? Do you ask him I'm ready
6 or does he come up to the bridge and see the Passage Plan in and
7 out of a harbor that you've never been to?

8 CAPT. JONES: Sorry for the long question.

9 THE INTERPRETER: It's okay.

10 THE WITNESS: No, I did not do that. I just prepared
11 the chart and I left it on the table. Basically, the master knew
12 that we were coming to the San Francisco harbor and I just put the
13 chart on there. I did not specifically ask the master to come
14 over and review these lines with me.

15 BY CAPT. JONES:

16 Q. Okay. Are you familiar with Sailing Directions?

17 A. I do not -- I don't know what you're referring to by
18 sailing directions.

19 Q. How about United State Coast Pilot?

20 A. Coast Pilot? What are you referring to?

21 Q. Coast Pilot and Sailing Directions. Maybe you have a
22 different name for them, but it's reference material for making
23 entry and exit out of ports and the tracks that you should follow
24 or might be recommended.

25 A. I'm not familiar with that.

1 Q. Okay. Can you read number 5 off of that same checklist?

2 A. Oh.

3 Q. Understand now Sailing Directions?

4 A. Yeah.

5 Q. Okay. How do you verify -- you've come aboard a new
6 ship and you've got a new chart that you've never seen before with
7 lines on it. How do you verify that those lines are accurate and
8 will keep the ship in safe water?

9 A. Like I said earlier, I trusted the previous crew had
10 drawn the lines accurately because that ship had the fixed route,
11 come here all the time, and I felt that they had drawn the line
12 correctly.

13 And, secondly, I believe in the Pilotage area the pilot
14 will pilot the ship to go along a right course, and the line we
15 draw on the chart, it's just a recommendation. He might not
16 necessarily follow it, and -- because the pilot himself is
17 familiar with local area.

18 So, based on these two reasons, I believe the lines on
19 the chart were accurate.

20 Q. Okay. Your Safety Management System requires you to
21 draw and make a Passage Plan for a berth to berth passage plan.
22 How would you do it if it was a chart that had never had lines on
23 it before, if it was your first time into the harbor?

24 A. If the lines were not there? Are you referring to the
25 Pilotage area?

1 Q. Yes.

2 A. Well, in my impression -- well, it's the first time for
3 me to be a second officer, so I did not have much experience.

4 But my belief is in a Pilotage area -- what I know is to
5 check this Sailing Direction and I can find the marks, symbols,
6 safety recommendations and also warning signs, you know, these
7 information in the Direction and also lists of lines. I would
8 check that and draw a recommendation line.

9 Q. Okay. The Safety Management System, SMS, how much
10 instruction did you get in the SMS on your transit across the
11 Pacific, across the ocean?

12 A. What specific time period you're referring to?

13 Q. Well, since you came aboard, the whole time.

14 A. So what information I got from SMS, is that what
15 you're --

16 Q. How much instruction? There were two people from the
17 company onboard. Did they instruct you in the use of your Safety
18 Management System?

19 A. I did not get much direction about the SMS system. Most
20 of the time when I was onboard the ship I spent my time
21 familiarizing myself with the equipment on the bridge.

22 Periodically, if they wanted me to do something, they
23 would tell me, but I don't think I'm very familiar with the SMS
24 system. Correct.

25 Q. The Passage Plan that was submitted had fixed intervals,

1 every 10 minutes fixes in Pilotage waters? Understand?

2 A. I don't remember clearly. Maybe it's in the company
3 documents.

4 Q. In the Safety Management System?

5 A. I don't remember clearly, 10 minutes, maybe 10 minutes.

6 Q. Well, it's different intervals and I don't want to pin
7 you down for one point, but in the Safety Management System it
8 gives the interval for when you take fixes dependent upon where
9 the vessel is, open ocean, one hour, closer to port, closer
10 interval.

11 A. That's correct. That's true.

12 Q. Where did you find those intervals? Where in the SMS
13 did you find those 10 minutes, 15 minutes, half-hour or 1 hour?

14 A. In SMS?

15 Q. That's what I'm asking the second mate.

16 A. Well, I don't remember. Well, anyway, from SMS, I don't
17 remember.

18 Q. Okay. Now have you been on other ships with Safety
19 Management Systems?

20 A. Yes.

21 Q. As a third mate?

22 A. Correct.

23 Q. And have you had any training in SMS with these other
24 ships or other -- is it with Fleet or is it with other companies?

25 A. Other company.

1 Q. Other companies. Did they give you training?

2 A. Basically when we were working on the ship we would
3 review the documents on our own initiative.

4 Q. Okay. The document -- on the Cosco Busan, were the
5 documents available to you on the bridge -- that you could look at
6 them, SMS?

7 THE INTERPRETER: I asked him to stop.

8 THE WITNESS: I don't remember very clearly now.

9 Well, after we got onboard the ship -- I don't remember
10 when they put the company's documents in the public area where
11 people can see. I don't remember the time when they brought the
12 documents. Well, my attention was not concentrated on the SMS
13 documents.

14 Basically, I concentrated my attention on familiarizing
15 myself with the equipment and also second mate's job to make --

16 THE INTERPRETER: Interpreter needs to clarify with the
17 witness.

18 THE WITNESS: -- making corrections of the sailing
19 documents, navigation documents, and also the charts.

20 That's where my attention was.

21 BY CAPT. JONES:

22 Q. Okay. Just a couple more and then we'll move on to the
23 next one. The navigation equipment, would you say you were the
24 most familiar on the ship with the radar, ARPA, ECDIS?

25 A. Well, when I said I spent the time to familiarize myself

1 with equipments, not only these equipments. I have to be familiar
2 with all kinds of equipments including the communications
3 equipments.

4 Q. That's fine. Just compared to -- with regards to the
5 other officers onboard, would you say you were the most familiar
6 with the ECDIS and the radar?

7 A. I have to be that way because I was the second officer
8 and it was my duty to tell other people -- to instruct other
9 people how to use them.

10 Q. Okay. When you pull into port, do you shut the radars
11 off? Is that your job or the mate on the bridge at the time?

12 A. Under normal circumstances it would be the officer of
13 the watch would shut off the equipments because at that time I
14 would be at the stern, and when they're done they would just turn
15 off the equipment.

16 Q. Okay. How about the morning of the accident, November
17 7th? You had the cargo watch midnight to 0600. Did you turn
18 everything on that morning in preparation for departing?

19 A. That was not possible. Well, maybe sometimes, you know,
20 only some of the equipments were turned off, some were still on,
21 and it would be the officer of the watch that morning, who would
22 turn on the equipment. I do not know what equipment they turned
23 on, maybe the radar.

24 Q. And that would have been the third mate?

25 A. That would be the third mate because before the ship set

1 sail he has to test everything.

2 Q. Okay. One more question about the Passage Plan. Are
3 you familiar with what racon is?

4 A. Yes, I know racon.

5 Q. Did you know the racons on the bridge, the Oakland Bay
6 Bridge?

7 A. That racon is used to direct a safe course. Basically
8 it's a safety mark.

9 Q. Did you include that in the Passage Plan?

10 A. You mean on this ship?

11 Q. No. For all of his career?

12 A. No, the second time. Well, the second time for me to
13 call in the harbor in the United States, but not this port.

14 Q. And how would he characterize the relationship between
15 the master and the pilot, as far as who is in charge?

16 A. Well, when the pilot is onboard, the master is still in
17 charge. However, when the pilot is onboard, we would follow the
18 pilot orders when he pilot the ship, but still the captain of the
19 ship still has the ultimate power. So if we get two orders at the
20 same time from the captain and also from the pilot, we would
21 follow the captain's order.

22 Q. In his experience has that occurred?

23 A. Basically, no.

24 CAPT. JONES: That's all my questions at this point.

25 UNIDENTIFIED SPEAKER: Would this be a good time to take

1 a break?

2 UNIDENTIFIED SPEAKER: I think so. It's 2:15. Ten
3 minutes? Ten minutes okay?

4 UNIDENTIFIED SPEAKER: Do five minutes.

5 UNIDENTIFIED SPEAKER: Well, we won't get far in five.
6 Let's do ten minutes. Be back at 2:25.

7 (Off the record.)

8 (On the record.)

9 MR. HOWDEN: If I might, there was one other procedural
10 matter that I had hoped was going to be raised, but I'd like to
11 raise it now, and that is that the witness, Mr. Zhao, is appearing
12 here today pursuant to a subpoena and his testimony here today is
13 being given pursuant to a Compulsion and Immunity Order that's
14 been signed by Mark --

15 UNIDENTIFIED SPEAKER: Rosenker.

16 MR. HOWDEN: -- Rosenker, thank you very much, the
17 Acting Chairman --

18 UNIDENTIFIED SPEAKER: Correct.

19 MR. HOWDEN: -- of the NTSB --

20 UNIDENTIFIED SPEAKER: Correct.

21 MR. HOWDEN: -- and that provides him with immunity
22 pursuant to 18 U.S.C. Section 602 et seq., and if there's any
23 dispute about that, I'd like to have that aired for the record
24 now.

25 MR. COMBS: Yeah, that's a good clarification to make,

1 and that was Jonathan Howden, the lawyer representing Mr. Zhao.
2 And then we did have one more person join, so he's going to
3 identify himself for the record.

4 MR. CONRAD: My name is Mark Conrad. I'm the --
5 representing Sperry Emergency Management.

6 MR. COMBS: And with that, we'll turn over the
7 questioning to Dr. Strauch.

8 BY DR. STRAUCH:

9 Q. Mr. Zhao, how old are you?

10 A. Twenty-eight.

11 Q. Could you just describe your marine background, your
12 experience and education?

13 A. I went to a marine academy in China and I studied there
14 for three years. And after my graduation I started as a cadet on
15 a ship, and then I worked as a third mate, and then I worked as a
16 second officer.

17 Q. What was the name of the academy you studied at?

18 A. It's Wuhan Polytechnic University.

19 Q. And how long is the program there?

20 A. My study was three years.

21 Q. What degree did you get?

22 A. Special --

23 THE INTERPRETER: This is the interpreter explaining.
24 It's equivalent to the U.S. associate degree, but it's called --
25 literally translated into Specialty Education or something like

1 that.

2 DR. STRAUCH: That's okay.

3 BY DR. STRAUCH:

4 Q. Did your course of study include any languages?

5 A. Yes. I studied English.

6 Q. Had he studied before?

7 A. Yes.

8 Q. How many years of English education did you take?

9 A. It's hard to say.

10 Q. Just an estimate.

11 A. About five or six years.

12 Q. And how fluent are you now in English?

13 A. Not good.

14 Q. Now the training that was conducted on the Cosco Busan,
15 what language was that conducted in?

16 A. We used English to communicate.

17 Q. If your English isn't very good, how were you able to be
18 trained on the Cosco Busan?

19 A. I said my English is not very good, but I could still
20 communicate with basic English. It's just relatively not that
21 good. Comparing to you, you guys, that my English is not good.

22 Q. I hope so. Okay. What made you pick that particular
23 maritime academy to attend?

24 A. No specific reasons. Just in mainland China the
25 education system after graduation from high school, you just

1 choose next level as your education.

2 Q. How many maritime academies are there in China?

3 A. It's not possible for me to estimate, many.

4 Q. Many. Okay. So how did he happen to pick one as
5 opposed to any of the others?

6 A. Well, it has been so long I don't know how to answer
7 your question. At that time I just graduated. I was very young.
8 I just picked one. I didn't know why I picked it.

9 Q. Okay. How old were you when you graduated from the
10 academy?

11 A. I think I was 22 when I graduated.

12 Q. How many years did you sail as a cadet?

13 A. I think I worked as a cadet for a total of two years,
14 total of one or two years.

15 Q. And how many years did you sail as third mate?

16 A. Third mate, I think also about two years.

17 Q. How long had you worked for Fleet Management?

18 A. I just started on this ship.

19 Q. Okay. And how did you get your promotion from third
20 mate to second mate, how is that done? How were you selected to
21 be second mate?

22 A. Well, the company gave me this opportunity to, you know,
23 work as a second officer, the company in China.

24 Q. Okay. What company is that?

25 A. It's a Chinese manning company.

1 Q. And how long had you worked for this company in China,
2 this manning company?

3 A. Ever since my graduation I started to work for this
4 company.

5 Q. Okay. And this is the only manning company you have
6 worked for?

7 A. Correct. I've been with this manning company all the
8 time.

9 Q. Did they interview you separately for each that you took
10 or they just interviewed you once after you graduated? How was
11 that done?

12 A. Well, no, because this company is a manning company. It
13 sends seamen to all the different foreign shipping companies, so
14 they would give me assignment based on my experience. They would
15 give me a similar assignment -- same assignment -- same position
16 or a different position.

17 You know, I first worked as a cadet and then, you know,
18 I became a third officer.

19 Q. And it was the manning company that made the decision to
20 make you a third mate or make you a second mate?

21 A. Well, their job is to make recommendations. They give
22 you the opportunity. They would tell us, you know, in this
23 shipping company they have these positions available, as a cadet
24 or a third officer or second officer, and they can make
25 recommendations.

1 And whether those shipping companies will give me the
2 position depends on the result of their interview. They would
3 interview me and make decisions.

4 Q. Okay. So tell us about the interview that Fleet
5 Management had with you when they offered you the second mate
6 position?

7 A. They basically -- they just gave me an interview. They
8 gave me an interview over the phone.

9 Q. Over the phone.

10 A. Interview.

11 Q. How long did the interview take?

12 A. I think over ten minutes.

13 Q. Ten minutes. And what kinds of questions did they ask
14 you?

15 A. Grade circle line. I don't remember exactly what
16 questions they asked me, but they asked me some questions related
17 to navigation. I think I remember they asked me one question
18 related to grade circle line.

19 Q. Did you also have an interview by this manning company
20 before you took the job on the Cosco Busan?

21 A. No.

22 Q. Had you sailed with any of the other crew members on the
23 Cosco Busan before?

24 A. No.

25 Q. Did you know any of these crew members before?

1 A. No.

2 Q. Did you have any trouble communicating with any of these
3 crew members?

4 A. No difficulties.

5 Q. Okay. What language did he communicate with anyone?

6 A. Chinese.

7 Q. Mandarin Chinese?

8 A. Mandarin.

9 Q. And everybody spoke Mandarin?

10 A. Yes.

11 Q. About how many different masters have you sailed with?

12 A. It's very hard to calculate. Sometimes I would work
13 under more than one master on one ship.

14 Q. Okay. What's an estimate?

15 A. My estimate is maybe seven or eight.

16 Q. Okay. And how would you compare Captain Sun to the
17 other masters?

18 A. That, I'm not able to answer the question. I'm not in
19 the position to comment.

20 Q. Because you don't remember or because you don't feel
21 comfortable answering?

22 A. Different masters have different styles, and I only had
23 the opportunity to work with him for a month and I do not know as
24 a person, you know, how he is or -- different people just have
25 different styles.

1 Q. Can you describe Captain Sun's style in the brief time
2 that you worked for him?

3 A. It's really hard to describe.

4 Q. Okay. How many times have you witnessed pilots come
5 onboard a vessel?

6 A. That's even harder to answer because when I worked as a
7 third officer I seen them coming onboard all the time, so many,
8 many times.

9 Q. Okay. And in your observations what would -- what kind
10 of communications did you observe between a pilot and a master?

11 A. I don't understand the question.

12 Q. Well, after the pilot came onboard, what information
13 would the pilot and the master discuss in your observations as a
14 third mate?

15 THE INTERPRETER: Interpreter needs to clarify with the
16 witness.

17 THE WITNESS: When the pilot get onboard, he normally
18 would introduce the local water conditions to the master and how
19 -- sometimes he would say -- he would explain how he planned to
20 pilot the ship, and also how to --

21 THE INTERPRETER: Interpreter needs a clarification.

22 THE WITNESS: -- and also how many tugs would be needed
23 and where the tug would be, and also when the ship was getting
24 into port and ready to dock, you know, how to make -- tie up the
25 lines, and sometime he would ask questions about the equipment on

1 the ship.

2 BY DR. STRAUCH:

3 Q. Who is he?

4 A. Pilot.

5 Q. Okay. Would there -- has he observed discussions
6 between the pilot and master in terms of whether or not they
7 should leave the dock if the weather -- the visibility is
8 restricted?

9 A. That kind of discussions, well, basically I haven't
10 observed any.

11 My impression is the company would give the instructions
12 regarding that, and my impression is -- well, when the visibility
13 was bad, they would have discussions and maybe be more alert.

14 Q. Okay. So as far you're concerned whose decision is it
15 to leave the dock?

16 A. Well, that depends on the circumstances. Sometimes I've
17 seen the local pilot -- you know, in China, you know, when the fog
18 was too heavy, and maybe the local pilot would not come out and
19 pilot the ship.

20 And, also, in other circumstances if the fog is too
21 heavy, maybe the captain would report to the company and make
22 recommendations and the company would make decisions. That all
23 depends.

24 Q. What was Fleet Management's policy with regard to the
25 decision to leave the dock? Whose decision was it according to

1 Fleet Management?

2 A. That I don't know. I don't remember.

3 Q. Have you ever seen a situation where the pilot and
4 master disagreed on whether or not to leave the dock in restricted
5 visibility?

6 A. I don't think so.

7 Q. And you said earlier that you had never seen a situation
8 where the master countermanded the pilot's order, is that correct?

9 A. Correct. Basically I haven't observed any such --

10 Q. In your experience, what would you expect the master to
11 be doing in a foreign port in restricted visibility while the
12 pilot is taking the vessel out of the port?

13 A. Well, the master's responsibility is to provide
14 assistance to the pilot because he's the person who is in charge
15 of the ship, so he would be with the pilot and give the pilot --
16 and evaluate the pilot's orders.

17 If there is any mistakes, he's supposed to make
18 corrections. And, also, if the pilot has any requests, then he
19 would use the resources of the ship to provide support to meet
20 that request.

21 Q. And how would the master know if the pilot was making a
22 mistake?

23 A. Well, he would do that based on his own experience. For
24 example, if sometimes the ship has to yield to another ship and he
25 feels that the way of yielding is not correct, then he would voice

1 his opinion, so it's very hard to say, different mistakes.

2 DR. STRAUCH: And just to the translator, you mean yield
3 to another ship?

4 THE INTERPRETER: Yield, yeah.

5 BY DR. STRAUCH:

6 Q. Would the master refer to the Passage Plan?

7 A. The master, maybe he would.

8 Q. Maybe. How often have you seen the master refer to a
9 Passage Plan in restricted visibility conditions?

10 MR. COMBS: Barry, this is the pilot onboard you're
11 still talking about?

12 DR. STRAUCH: Yes, yes.

13 THE WITNESS: Basically I haven't observed the captain
14 refer to the Passage Plan.

15 BY DR. STRAUCH:

16 Q. And how often would you see the captain refer to the
17 charts in restricted visibility conditions while leaving the port?

18 A. Of course, he would refer to the chart very often.

19 Q. Okay. And would he refer to the charts in a vessel
20 that's equipment with electronic charts and radar?

21 THE INTERPRETER: I'm sorry.

22 BY DR. STRAUCH:

23 Q. Would he refer to the charts in a bridge that had ECDIS
24 and ARPA and radar and all that?

25 A. Yes. The paper chart, he would definitely refer to it.

1 Q. Okay. Now you were on the bow during the voyage from
2 San Francisco, is that -- that's correct, the stern, rather? You
3 were on the stern?

4 A. Correct.

5 Q. How would you describe the visibility at that time?

6 A. I can only say very bad, very bad, but as for exactly
7 how many meters we could see, I'm not able to, but it's pretty
8 bad.

9 Q. Okay. In your years of sailing, how often had you seen
10 visibility that bad?

11 A. Well, in my years of experience, well, I've encountered
12 the situation, especially in open sea. When we were sailing on
13 open sea we would -- sometimes we would encounter heavy fog.

14 Q. Now how many times have you seen that kind of visibility
15 when you were leaving the dock, going out?

16 A. Well, this was the first time for me to be stationed at
17 the bow -- at the stern. Before, I would always be on the bridge.

18 Q. Okay. From your experience, have you seen vessels
19 depart the dock with visibility as bad as it was the day of the
20 accident?

21 A. Maybe not as bad, not as bad.

22 Q. So does that mean you have never departed a dock with
23 visibility as bad it was that day?

24 A. I cannot be absolutely sure. I could only say I've seen
25 visibility -- bad visibility before, but my feeling is that this

1 one was pretty bad, but it's hard to me to make comparisons.

2 Q. Were you surprised that the decision was made to leave
3 the dock given the visibility?

4 A. I wouldn't say I was very surprised because the decision
5 was made higher up. The supervisor of the company was onboard and
6 the master was onboard and also the Coast Guard was onboard, so I
7 wouldn't say I was very surprised.

8 Q. Okay. And the Coast Guard was onboard when --

9 A. I did not say the Coast Guard was onboard. I said they
10 couldn't make decisions. I said the pilot station, you know, the
11 -- when the pilot, you know, got on the ship.

12 Q. Okay. Now you said this was your second time coming
13 into port as a deck officer, coming into a U.S. port as a deck
14 officer?

15 A. So the first -- when I visited a U.S. port the first
16 time I was not an officer yet.

17 Q. Okay. But apparently you've had experience with pilots
18 from all over the world, is that true?

19 A. I wouldn't say all over the world but, you know, I've
20 been to many countries and I have experience with many pilots.

21 Q. Are pilots better in some countries than in others?

22 A. That is very hard to comment. It depends on different
23 pilots. Some of them are good, some of them are bad.

24 Q. Do American pilots have a certain reputation among
25 Chinese crew members?

1 A. What do you mean?

2 Q. How are -- how do Chinese crew members see American
3 pilots? How do they consider them, their skills and so on?

4 A. Well, different people have different opinions and I did
5 not have much communications with them.

6 Q. Okay. You said that the bridge equipment worked okay
7 except the radar was a little bit fuzzy, is that correct?

8 A. Correct. That was my feeling.

9 Q. And the radar, I think, was replaced in Long Beach, is
10 that -- was maintenance done in Long Beach, is that correct?

11 A. Correct.

12 Q. And could you describe the radar image appeared after
13 the maintenance compared to how it looked before the maintenance
14 was carried out?

15 A. Well, I don't know whether that maintenance was related
16 to that problem I mentioned. Actually, I personally did not feel
17 that the radar had that big of a problem, although the image was a
18 little blurry, but it could still be used, so from beginning to
19 end I didn't feel that radar had a serious problem.

20 Q. Okay. On any of the bridge equipment, was there
21 anything wrong with any of that equipment that would have
22 prevented somebody from navigating using that bridge equipment at
23 any time you were on the vessel?

24 A. So what time period are you referring to and where?

25 Q. Let's say from Long Beach to San Francisco.

1 A. So did you ask me whether I feel that -- are there any
2 equipment on the bridge I felt that was abnormal or malfunction?

3 Q. Was there any problem using any of that equipment to
4 navigate?

5 A. No.

6 Q. At any point between Long Beach and San Francisco?

7 A. No.

8 Q. Did you hear anybody on the bridge complaining or say
9 anything bad about the way any of the bridge equipment was
10 working, the navigation equipment was working?

11 A. I didn't hear any.

12 Q. Okay. When you boarded the vessel in Busan, what did
13 the superintendent and the other person from Fleet Management tell
14 you about the kind of training they were conducting?

15 A. They did not say anything specific.

16 Q. What did they say in general?

17 A. No. Actually, if they had anything that they wanted us
18 to do, they would ask us to do it. Most of the training was
19 related to drills because we were going to enter American waters
20 and we had to conduct all kinds of drills, and all crew members
21 had to participate.

22 Q. What drills did you conduct -- were conducted?

23 A. Many drills, including rescue, firefighting, abandoning
24 ship, oil spill, the standard drills onboard.

25 Q. Did any drill have to be conducted twice because it was

1 not conducted satisfactorily the first time?

2 A. Yes, there were because it was training.

3 Q. What drills were they?

4 A. I don't remember.

5 Q. What specific training was given that was not related to
6 a drill?

7 A. Based on my recollection, there was no other specific
8 training beside the drills.

9 Q. Okay. How were you expected to become familiar with
10 Safety Management System on the ship?

11 A. Well, I don't know. Well, all the people onboard -- the
12 primary goal of all the crew members was to familiarize with the
13 ships because all the crew members were new and we need to
14 familiarize ourselves with the ship and safely sail the ship to
15 the U.S. As for the company's documents, if we had -- we were
16 told if we had time we could read those documents on our own, and
17 the primary goal was to -- for us to operate the ship, so that's
18 what we did from the -- in the voyage from Busan to the U.S., and
19 I think the superintendent onboard also stressed that.

20 Q. Okay. Did you have time to read the SMS during that
21 voyage?

22 A. Basically I didn't, I didn't.

23 Q. Okay. When was the first time you looked at the SMS?

24 A. I don't recall.

25 Q. Did you look at it at any point before you came to the

1 U.S.?

2 A. I don't recall. I don't recall. I just remember
3 basically I was very busy and I need to familiarize myself with
4 the ship. I don't recall.

5 Q. Okay. About how many different vessels have you served
6 on?

7 A. Including this one, five.

8 Q. Five? And about how many different operating companies
9 did you work for, also five?

10 A. Yes, five.

11 Q. Describe to me any differences in the training that
12 Fleet Management conducted in this two week voyage from Busan to
13 California compared to the other five companies -- the other four
14 companies on the other four vessels that you were on.

15 A. Well, before -- well, this is a very broad question.
16 It's hard for me to answer. The ships that I work on before were
17 not a change of the whole crew. It was just maybe just a
18 replacement of a third officer.

19 When I got onboard, I could get help from other crew
20 members because they were familiar with the ship and I did not
21 feel the press for time. And this ship, it's a total -- it's a
22 complete change of all the crew members and everybody was new, and
23 I had to familiarize everything, you know, on my own.

24 And also, on other ships the superintendent was not
25 onboard because it's not a complete change of crew members.

1 Q. Okay. Now you said the superintendent worked with you
2 and showed you different things on the ship, is that correct?

3 A. Well, no. Actually, if the superintendent wanted me to
4 do something, then he would tell me patiently, you know, how to do
5 that thing, you know, how to do the things.

6 Q. Okay. And what kinds of things did the superintendent
7 ask you to do?

8 A. Well, that's very hard to say because there are many
9 things on a ship, some issues related to navigation. It's hard
10 for me to enumerate them.

11 Q. Maybe just describe one or two things about navigation
12 that the superintendent asked you to do.

13 THE INTERPRETER: Interpreter needs to clarify with
14 witness.

15 THE WITNESS: Well, it's not that I don't want to say,
16 but there are some professional issues.

17 For example, filling out the deck log book, he would
18 tell me how to fill out the log book according to the company
19 rules. And also at midday the master is supposed to send a report
20 to the company through email or satellite, and he would tell me
21 what kind of data in what format should be prepared to give to the
22 master so that the master can incorporate the data in his midday
23 report.

24 MR. HOWDEN: Excuse me? Procedurally, there have been a
25 couple of instances where the interpreter has asked my client to

1 stop his answer in mid-answer so that he could completely
2 translate what had been said already, but in neither of the
3 instances that I've seen so far has he -- has my client completed
4 his answer, and it might be helpful if, Michael, you could
5 indicate that and then get the rest of the answer from Mr. Zhao.

6 THE INTERPRETER: Okay.

7 BY DR. STRAUCH:

8 Q. The interview that you had with Fleet Management that
9 you said was about ten minutes, what language was that conducted
10 in?

11 A. English.

12 Q. And what kinds of things did they ask you? What kinds
13 of questions did they ask you?

14 A. I think I answered that question.

15 Q. Your watch was midnight to 600, is that correct, 0600?

16 A. Correct, from midnight to 600.

17 Q. Okay. The day before the accident, what time did you go
18 to sleep?

19 THE INTERPRETER: The interpreter was asked to repeat
20 the translation.

21 THE WITNESS: Are you asking me before I assumed my duty
22 at midnight when did I go to sleep?

23 BY DR. STRAUCH:

24 Q. Yes.

25 A. I don't recall. I think after my shift I just went to

1 sleep, after my shift.

2 Q. Do you remember -- the accident was November 7th. On
3 November 6th do you remember what time you got up?

4 A. I don't recall.

5 Q. Okay.

6 DR. STRAUCH: I have no further questions.

7 MR. COMBS: Why don't we move on and we will move around
8 clockwise. Okay.

9 BY MR. HOLLY:

10 Q. Good afternoon, Mr. Zhao. My name is Rick Holly. I
11 represent the Department of Fish and Game, Office of Spill
12 Prevention and Response.

13 I have a few questions regarding your duties and the
14 equipment, navigation equipment and radar equipment, in the
15 bridge. I understand that it's your -- one of your primary duties
16 to adjust and tune and maintain the equipment, navigation
17 equipment and radar, on the bridge, is that correct?

18 A. Yes.

19 Q. A couple of specific questions on the radar. When you
20 arrived on the Cosco -- well, let me back up. You said you served
21 on five vessels prior, including the Cosco Busan, and on those
22 vessels did you yourself adjust or maintain or tune any of the
23 radars or navigational equipment?

24 A. The five vessels? I did not conduct any maintenance,
25 but when I was on duty I did tune the radar equipment. It's

1 within my responsibility.

2 Q. Okay. Were any of the radars in previous vessels the
3 same as, exactly the same as, the Cosco Busan?

4 A. No.

5 Q. Were you trained by anybody on the Cosco Busan
6 specifically on the tuning and adjustment of the radar of the
7 Cosco Busan?

8 A. No.

9 Q. How did you -- if tuning and adjusting the radar on the
10 Cosco Busan was your duty, how did you learn that?

11 A. I would like to declare here the -- it's not that -- the
12 adjusting or tuning the radar that's my duty. You know, when you
13 adjust the function of the -- functions of the radar equipment, it
14 doesn't mean the radar equipment has any problem.

15 Sometimes you just -- you use different functions to
16 help your -- and to get maybe different data. And different
17 officers on duty, they would read the manual, and sometimes I
18 would also give them some information as to how to use the radar,
19 but different officers would -- they can also adjust the radar
20 equipment and use different functions --

21 Q. I see. Okay. Is there any particular time either
22 entering or leaving port where you personally would adjust the
23 radar, turn the radar on and adjust it, before you entered port,
24 before you'd leave port?

25 A. So what time period you're talking about?

1 Q. Well, let's say when the Cosco Busan was entering San
2 Francisco.

3 A. So when Cosco Busan entered the San Francisco harbor did
4 I adjust the radar?

5 Q. Yes. Would that be part of your duties before you
6 entered restricted waters?

7 A. I wouldn't say that's my duty. Every officer of the
8 watch would do that.

9 Q. But you wouldn't specifically be called to do that
10 before entering or leaving port?

11 A. No, no.

12 Q. Okay. Have you ever adjusted a radar alongside the pier
13 with gantry cranes on the pier?

14 THE INTERPRETER: What crane? I'm sorry.

15 MR. HOLLY: Have you ever adjusted a radar alongside a
16 pier with gantry cranes, obstructions, by the pier?

17 THE INTERPRETER: Interpreter was asked to repeat the
18 translation.

19 THE WITNESS: We wouldn't use the radar equipment at
20 dock or in the harbor.

21 BY MR. HOLLY:

22 Q. You couldn't -- you could not adjust it beside the pier?

23 A. I wouldn't say you couldn't adjust it. I mean, when the
24 ship dock at the pier, then we would just the radar off. We would
25 not use it.

1 Q. Okay. Are you familiar with the automatic sea clutter
2 control on the radar?

3 A. Are you talking about the gain?

4 Q. I'm talking about a sea clutter control and there's also
5 a master gain.

6 THE INTERPRETER: Gain and the sea --

7 MR. HOLLY: Sea clutter. He's right.

8 THE WITNESS: Yeah. It's automatic.

9 BY MR. HOLLY:

10 Q. It's automatic. Would you tune that -- would you leave
11 that in automatic to tune it?

12 A. Yes, it's always --

13 Q. Always automatic?

14 A. Automatic.

15 Q. Is there any effect that you would expect with a large
16 metal object by the pier that would affect that radar -- picture?

17 A. You mean when the piece is close -- the ship close to
18 the bridge?

19 Q. Yes.

20 A. I think I learned it in school. I've never done it
21 before. But I think when there's a large object close to the
22 equipment there might be a fake echo and there might be a blind
23 area, but I've never done it before.

24 Q. Okay. All right.

25 Still talking about the radar, a little bit different

1 subject here, are you familiar with a route display that can be
2 put on the radar, a vessel track, vessel track display?

3 A. Well, the vessel track display, there's a button. If
4 you want the track display, you can turn it on, but if you don't
5 want the track, then you can turn it off.

6 Q. And that track display is based upon waypoints, is that
7 correct?

8 THE INTERPRETER: It's based on way -- I'm sorry.

9 BY MR. HOLLY:

10 Q. The track display that can be turned on or off is based
11 on waypoints?

12 A. Well, normally we would not put waypoint on the radar
13 equipment, but there's a function, if you wanted you can put them
14 on.

15 Q. Okay. That's all the questions I have on radar. I have
16 some on electronic charts. Same question for electronic charts,
17 you could put a track display on the electronic chart based on
18 waypoints, is that correct?

19 A. Yes, correct.

20 Q. Was that done -- I understand that was not done in the
21 case of the Cosco Busan leaving San Francisco Bay on 7 November.

22 A. We didn't do what?

23 Q. Display the intended track of the Cosco Busan on
24 electronic charts leaving port.

25 A. The track display was not done from the dock to the

1 pilot station, but for the outside part we did have it.

2 Q. Okay. In your opinion, do you feel that if you had a
3 track display displayed on the electronic chart that would have
4 assisted the captain and the pilot departing in fog?

5 A. I would like to first explain. This was the first ship
6 that I worked on that I had a electronic chart system. The ship
7 that I worked before, I did not have that experience.

8 Q. I see. So one last question.

9 So if I understand this correctly, this was your first
10 ship as second mate and you were not familiar with this electronic
11 chart system, is that correct?

12 A. Correct.

13 Q. Correct?

14 A. Correct.

15 Q. So did you -- were you instructed by anybody or did you
16 learn how to input waypoints to that electronic track system prior
17 to 7 November?

18 A. On this ship I studied the electronic chart system by
19 teaching myself. I read the manual myself. Nobody instructed me
20 to learn about it.

21 Q. Thank you very much.

22 MR. HOLLY: That's all I have.

23 MR. COMBS: Can I make a suggestion that we go around
24 the table and then do Captain Aga last?

25 UNIDENTIFIED SPEAKER: Sure.

1 CAPT. BROWN: We are going around twice?

2 MR. COMBS: Yes.

3 CAPT. BROWN: No questions at this time.

4 MR. COMBS: And that was --

5 CAPT. BROWN: Steve Brown.

6 MR. COMBS: Thank you, sir.

7 CAPT. MOLONEY: Hello. Pat Moloney, Board of Pilot
8 Commissioners. Which sea watch did you stand?

9 THE INTERPRETER: I'm sorry, sir. I didn't hear you.

10 BY CAPT. MOLONEY:

11 Q. Which sea watch did you stand?

12 A. From 0 to 400 and from 1200 to 1600.

13 Q. After the accident were you asked to prepare any ship's
14 documents that should have been prepared before department?

15 A. Yes.

16 Q. Which documents?

17 A. The most important one was the Passage Plan.

18 Q. Who asked you to do that?

19 A. A guy got onboard afterwards, a guy called Arina (ph.).
20 I think he was also a superintendent.

21 Q. Were there any other significant documents?

22 A. And also I think the document I was shown earlier, the
23 appraisal, that I needed to sign. I think that one also.

24 Q. All right. Were you asked to destroy any ship's
25 documents?

1 A. That, no.

2 Q. Thank you.

3 CAPT. MOLONEY: I have no other questions.

4 BY CAPT. HURT:

5 Q. Hi. Rick Hurt, San Francisco Bar Pilot, and I have just
6 a few questions about the orientation process that you went
7 through when you boarded. Were you given a document that clearly
8 stated what your responsibilities onboard would be?

9 A. I don't think I saw any.

10 Q. I guess then how did you know what your responsibilities
11 were to be at your position?

12 A. Well, it's very normal and common just that second
13 officers -- well, I would like to repeat. I was supposed to be
14 familiar with all the equipment onboard, and that's -- I was also
15 told by the master to do that. That's a second officer's job.
16 It's very common, and also to correct the chart on the ship and
17 also make corrections to the documents.

18 As to the system documents of the company, if I have
19 time, you know, I would review those documents when I had time,
20 but the most important job was for me to familiarize with the ship
21 and to make sure that the ship safely sailed to the United States
22 and pass, because we were going to enter the U.S. waters we had to
23 pass all the inspections.

24 Q. With regard to the bridge navigation equipment, was it
25 your responsibility to routinely conduct testing and maintenance?

- 1 A. Yes.
- 2 Q. And how did you learn how to do that?
- 3 A. I did that mainly through reading the manuals.
- 4 Q. And were the manuals in Chinese?
- 5 A. No, in English.
- 6 Q. Okay. Have you ever participated in an SMS/ISM
- 7 inspection or audit?
- 8 A. Well, I need to ask what time are you referring to?
- 9 What time period are you --
- 10 Q. Ever in your career.
- 11 A. I think I learned about it in school, ISM.
- 12 Q. And how long was your contract onboard to be for?
- 13 A. I think I signed a contract for ten months, plus or
- 14 minus two months.
- 15 Q. Thank you.
- 16 CAPT. HURT: I have no further questions.
- 17 BY CAPT. WHEATLEY:
- 18 Q. Ross Wheatley, Coast Guard. I just have a couple of
- 19 questions. At any point on the 7th of November 2007, were you
- 20 ever asked to come to the bridge to assist the master, the third
- 21 mate or the pilot --
- 22 A. To the bridge?
- 23 Q. Yes?
- 24 A. No, no.
- 25 Q. Thank you.

1 CAPT. WHEATLEY: I have no further questions.

2 MR. COMBS: At this point why don't we take a break.

3 Captain Aga is going to ask the next set of questions.

4 And did you decide whether he wants to come up on this phone?

5 UNIDENTIFIED SPEAKER: Yeah. I think it's probably
6 better on that phone.

7 MR. COMBS: So while we're at break why don't you --

8 UNIDENTIFIED SPEAKER: Captain Aga? Okay.

9 CAPT. NAGARAJAN: I'll dial in.

10 UNIDENTIFIED SPEAKER: Okay. You'll dial in?

11 MR. COMBS: And we'll take a --

12 CAPT. NAGARAJAN: Yeah.

13 UNIDENTIFIED SPEAKER: Fine. That way we --

14 MR. COMBS: Well, yeah. Try and be back seated,
15 underway, before 4:00.

16 (Off the record.)

17 (On the record.)

18 MR. COMBS: Captain Nagarajan, if you could please
19 identify yourself and you will have the podium.

20 CAPT. NAGARAJAN: Okay. This is Captain Nagarajan from
21 Fleet Management in Hong Kong. I have a few questions for
22 Mr. Zhao.

23 Can I start?

24 MR. COMBS: Yes, sir.

25 CAPT. NAGARAJAN: Okay.

1 BY CAPT. NAGARAJAN:

2 Q. The first question is about responsibilities.

3 Mr. Zhao, you were asked about responsibilities. Is the
4 job of a second officer same on all ships?

5 A. Are you asking about third officer?

6 Q. No, the second officer, his responsibility as second
7 officer. Would it be different on different ships or would it be
8 the same?

9 A. This is the first time for me to work as a second
10 officer on this ship.

11 Q. Okay. I'll rephrase that question. If he was a third
12 officer, he sailed on two or three ships. Was his job any
13 different on every ship that he sailed on?

14 A. No. Different companies might have their own specific
15 requirements.

16 Q. How different is the difference between the companies?

17 A. The difference would not be very big. Basically the
18 responsibilities of a third officer would not change. It would
19 include firefighting and rescue, but -- they might add something,
20 but it would not be major.

21 Q. Okay. Who gave Mr. Zhao the license to be a second
22 officer?

23 A. Chinese government agency. I think it's the China
24 Maritime Safety Administration.

25 Q. Okay. Was the radar training a part of that

1 certification process?

2 A. No. The license of radar and ARPA, I have already
3 obtained the license when I was still studying in school, and the
4 other license I obtained after school.

5 Q. Okay.

6 CAPT. NAGARAJAN: It is part of -- for the record, it is
7 part of FTEW (ph.) to have a radar and ARPA certification before a
8 watch keeping certificate is issued so that is what the question's
9 for.

10 BY CAPT. NAGARAJAN:

11 Q. Next question for Mr. Zhao, has he ever been on aft --
12 the stern station before as a cadet or as a third officer?

13 A. When I was a cadet I did work at the stern, but I was
14 still learning as a student and I was not in charge. I was not on
15 watch.

16 Q. So basically he saw what the second officer was doing
17 and it was a part of the training process to be part of the team
18 at the stern, correct?

19 A. At that time I think I just learned about those things.

20 Q. Okay. When he went on the aft -- the stern station for
21 the first time, did this help him to know what his responsibility
22 was?

23 THE INTERPRETER: I'm sorry. Captain, can you -- would
24 you please repeat the question? I did not --

25 BY CAPT. NAGARAJAN:

1 Q. Okay. Now as a second officer in charge, when he went
2 to the stern stations, how did he know what his responsibility
3 was? Was that training during cadet helpful?

4 A. I wouldn't say only during the time when I worked as a
5 cadet. During the whole time when I started to work as a cadet
6 and also worked as a third officer all the way up to the second
7 officer I've been paying attention because I knew I was going to
8 be a second officer, so I paid attention when I was working on the
9 bridge. I paid attention to the communication between the master
10 and the second officer. It's a whole process.

11 Q. Okay. Coming to the day of the allision, after you cut
12 off the lines, after Mr. Zhao cut off all the stern lines, where
13 was he standing? Was he standing right at the back or behind the
14 mooring winch?

15 THE INTERPRETER: Behind the mooring winch or --

16 CAPT. NAGARAJAN: The mooring winch. Ask him what was
17 his position, was he standing right at the back or --

18 THE INTERPRETER: Okay, okay.

19 CAPT. NAGARAJAN: -- towards the accommodations?

20 THE WITNESS: It's not possible for me to remember the
21 exact position where I stood. I only remember that I was at the
22 stern.

23 BY CAPT. NAGARAJAN:

24 Q. Okay. Given that the ship had a big freeboard and given
25 that the visibility was very poor, could he see the tug when he

1 was -- after he left the --

2 A. I could see a little bit, a little bit.

3 Q. Okay. My question is because if the tug had a problem,
4 maybe he could not see it because of the visibility. Is that a
5 possibility or not?

6 A. You asked about the problem of the tug. Would you
7 please specify what problem you are referring to, what problem I
8 could have reserved -- could have observed?

9 Q. I referred to the question by Captain Rob Jones. He
10 asked Mr. Zhao did he see any problem on the tug. There was a
11 reason for asking that question, so if he cannot see the tug -- I
12 want to see whether he saw the tug to see the problem.

13 A. I'm still not clear what you would like me to answer.

14 Q. All right. I will skip to the next question. My
15 question was basically just to find out if he could see the tug in
16 poor visibility.

17 A. I said I could see a little bit. I could see the
18 tugboat, but because of the heavy fog I could not see it very
19 clearly.

20 Q. Okay. In Mr. Zhao's country, in China, if the fog is so
21 thick, who will stop the ship from sailing? Will it be the
22 captain, will it be the Port Authority or will it be the pilot?

23 A. Well, like I explained earlier, the Port Authority could
24 have made the decision. The Port Authority could make the
25 decision if the fog's too heavy, if it forbid any ship from

1 sailing, that it's impossible for you to set sail. And also --
2 it's also a possibility that the company would make the decision
3 not to set sail because of the fog, so two possibilities.

4 Q. Okay. In his experience, Mr. Zhao, had he seen as a
5 third officer a pilot pulling a Passage Plan off the ship?

6 A. No.

7 Q. Okay. Would Mr. Zhao have a lot of respect for the U.S.
8 pilot or no respect?

9 A. I think I don't need to answer this question because
10 I've explained earlier different pilots have different styles and
11 respect or not is not an issue.

12 Q. Okay, one question about the SMS.

13 On his previous ships, was he asked to read through that
14 SMS all the time by his company or did he remember all of that?

15 A. No. When we get onboard the different ships, we would
16 read the company's documents when we have time, but we would not
17 remember everything. We will do that when we have time, but we
18 would concentrate on the navigation safety.

19 Q. Okay, one last question. Does Mr. Zhao -- can he tell
20 me if all of the radars that he used had the following controls:
21 the tuning, the gain, the brilliance and the clutter switches?
22 Were they present on all the radars that he used?

23 THE INTERPRETER: Captain, what's the third one? I
24 didn't get it.

25 CAPT. NAGARAJAN: Okay. Just ask him the three that you

1 got.

2 THE INTERPRETER: Okay.

3 CAPT. NAGARAJAN: That's good enough.

4 THE INTERPRETER: All right.

5 THE WITNESS: I don't know. This is the first time for
6 me to hear the word clutter. I don't know what it means.

7 BY CAPT. NAGARAJAN:

8 Q. Okay. He already answered that because he was -- he was
9 asking him the question. He said yeah, it is on auto sea clutter,
10 auto control and auto gain, auto tuning, so --

11 A. That's gain. That's gain.

12 Q. And the brilliance.

13 A. Yeah, brilliance.

14 Q. Would it be fair to assume that he knows how to start
15 the radars and -- I'll rephrase that question.

16 CAPT. NAGARAJAN: Ask him --

17 BY CAPT. NAGARAJAN:

18 Q. Mr. Zhao, can you tune a radar using the gain, the
19 brilliance and the contrast, any radar?

20 A. Yes, these three functions. I can tune a radar, yes.

21 Q. Okay. About the electronic chart, did he make a Passage
22 Plan on the electronic chart?

23 A. Yes.

24 Q. He made it on the electronic chart. Okay.

25 CAPT. NAGARAJAN: Thank you. I have no further

1 questions. Thank you for the assistance.

2 MR. COMBS: Thank you, Captain. Shall we now switch --

3 MR. JONES: The only thing we wanted to add to the
4 record is a copy of his Seaman's Book that will show his
5 experience and all the ships he's been on, and he can provide a
6 copy tomorrow. He didn't bring it today.

7 MR. COMBS: He can or he will provide a copy?

8 MR. JONES: He will.

9 MR. COMBS: Even if we finish up all the questioning
10 today?

11 MR. GREENBERG: I mean --

12 MR. JONES: Yeah. He's willing to provide it.

13 MR. COMBS: Okay. Shall we terminate the phone call?

14 MR. JONES: Why don't we just go ahead and whatever,
15 what would be the next exhibit number in line so it's on the
16 record what we're going to mark that? Exhibit 2.

17 MR. COMBS: How do we do that without actually having
18 the document?

19 MR. GREENBERG: I think we just mark it and -- when we
20 get it we'll mark it --

21 MR. COMBS: Okay.

22 MR. GREENBERG: -- and add it to the record.

23 MR. COMBS: Okay. With Captain Aga complete, we now
24 will go through a second round of questioning and we'll start off
25 with Captain Jones.

1 BY CAPT. JONES:

2 Q. Okay. Mr. Zhao, just to finish up where Captain Aga, he
3 had mentioned an electronic chart for the Passage Plan. Was that
4 berth to berth or pilot to pilot?

5 A. Pilot to pilot.

6 Q. Okay. Let's take it a little different. What's your
7 understanding of the Safety Management System, why is that
8 onboard?

9 A. It's also related to safety, to safety and the company's
10 operations.

11 Q. Okay. And you said you were on other ships previous
12 with Safety Management Systems.

13 A. Yes.

14 Q. Okay. And those ships and that SMS had certain
15 procedures to follow, is that correct?

16 A. Yes.

17 Q. And did you follow them for your duties? Now you were
18 third mate then, not second, but did you follow them to the
19 letter?

20 A. It's not quite possible to follow it to the letter. I
21 would read some part related to safety issues. However, sometimes
22 what's written in there, in reality it's impossible to follow, and
23 so I would try my best to follow the procedure.

24 Q. Okay. If there was a procedure you had a problem with,
25 could you tell someone about it?

1 A. Well, I was not told to tell that to anybody, but I
2 would read it -- read the instructions and I would try my best to
3 follow the procedure.

4 If there's an issue, well, I might talk about it with
5 other crew members or the captain. However, if it's not a major
6 issue related to navigation I might not do that, but if it is a
7 major issue related to navigation I might pursue it and ask
8 somebody.

9 Q. Okay. Now Captain Hurt before had asked you if you'd
10 been through an ISM audit and I don't know if we got an answer. I
11 think you said you had some training, Safety Management System
12 training. Have you ever been through an audit?

13 A. So I don't quite understand. By auditing -- by audit
14 you mean somebody come over and inspect me?

15 Q. Inspect you and the vessel and those SMS procedures.

16 A. Yes, yes, I have experienced.

17 Q. You have?

18 A. I have.

19 Q. And when you participated in that audit, if they found
20 something that was not done right, was that a problem, if a
21 procedure was not followed?

22 A. Well, it shouldn't be.

23 Basically, if they come over to give us an inspection,
24 then they would conduct the inspection based on the company's
25 documentations, so if they do see a problem, they would raise the

1 issue.

2 Q. Okay. Do you know what DP stands for?

3 A. Yeah.

4 Q. What does it stand for?

5 A. The safety person on the shore, so that person's in
6 charge of the overall safety. If there is any safety issue, we
7 would turn that to that person, the issue to that person.

8 Q. And do you know how to get in touch with that person?
9 Do you know who that person is for Fleet?

10 A. Well, right now I don't remember that person's name, but
11 at that time I definitely knew because we would put his name and
12 contact number on the ship.

13 Q. Okay. It's been a while. I understand. But the issues
14 you said before, if there are certain procedures you couldn't
15 follow, would you bring it to the DP's attention or the master's
16 attention?

17 A. I think I would ask the captain.

18 Q. Were there any issues on the Cosco Busan that you
19 brought to the captain's attention that was your responsibility
20 for the SMS?

21 A. I don't think I had any because, like I said earlier, I
22 did not have much time to read the SMS, the company documents, so
23 I did not find many issues that I need to raise to the master.

24 Q. Okay. Have you had BRM training, Bridge Resource
25 Management training?

1 A. No, maybe.

2 Q. Okay. Now when you were a third officer, were you ever
3 on the bridge alone with a pilot in a U.S. port or another port?

4 A. Yes, sometimes that happened. Sometimes the captain
5 would have some other things to take care of or he would go down
6 and I would be alone with the pilot on the bridge.

7 Q. And what did he understand his duties to be between
8 himself as the mate on watch and the pilot?

9 A. My responsibility would be in charge of the lookout and
10 also pay attention to traffic close to the ship. If there were
11 anything doubtful -- if there were any doubtful situations, I
12 would report to the captain.

13 Q. Okay. And did that ever happen, any doubtful
14 situations?

15 A. No.

16 Q. Do you feel you could ask the pilot or question the
17 pilot if you felt he was doing something that endangered the ship?

18 A. I feel if the captain was present then I would raise the
19 issue with the captain. I would not talk to the pilot directly.

20 Q. If the captain was not present, if he was up there alone
21 with the pilot.

22 A. Then maybe I would ask.

23 Q. Okay. When you were on the bridge with the pilot, would
24 you be taking fixes?

25 A. Definitely I would.

1 Q. Now your duties are also to monitor the helmsmen and the
2 telegraph, the engine telegraph, and the pilot and also take
3 fixes?

4 A. Yes.

5 Q. How often would you take fixes?

6 A. That would depend on the circumstances. It depends.

7 Q. Okay. So whenever possible?

8 A. Right, whenever I have time or it depends on the
9 circumstances. If the traffic is heavy or if the channel was
10 narrow or the visibility was bad, then the frequencies of my
11 taking fixes would also be -- would also vary.

12 Q. Okay. And after you put a fix on the chart would you go
13 up and tell the pilot anything?

14 A. Well, I would not because after I took a fix I would
15 leave it there, so periodically he would come over and review it.
16 It's not possible for me to report to me -- to him every time I
17 take a fix.

18 Q. Okay. You said you took English for five years?

19 A. Yeah, that's my estimate. It's about.

20 Q. And on the bridge, in English, you've never -- do you
21 have any problems understanding the pilot's commands in English?

22 A. Of course, sometimes. You said communication, not
23 orders, right?

24 Q. Well, okay, let's go to standard orders, so starboard
25 20 --

1 A. Never.

2 Q. Never a problem?

3 A. No.

4 Q. Okay. Just when it gets longer?

5 A. Well, anything on the bridge, anything related to
6 navigation, the orders, I did not have -- I do not have any
7 problem. It's relatively simple.

8 But if he give a long introduction of certain
9 situations, then sometimes it's harder for me to follow.

10 Q. Okay.

11 CAPT. JONES: That's all I have right now.

12 BY MR. HENRY:

13 Q. Robert Henry, NTSB. Did you have to pass a knowledge
14 and skills test to get your second license?

15 A. I did not have to take one for my second license.

16 Q. Can you tell me what the purpose of a racon is?

17 A. A racon -- the purpose of a racon is help you to
18 position your ship. That's the main purpose.

19 Q. And why wasn't the Passage Plan aligned with the racon
20 under the bridge, on the chart that was on the bridge?

21 THE INTERPRETER: Aligned with?

22 MR. HENRY: Under it.

23 THE INTERPRETER: Okay.

24 THE WITNESS: Well, the lines were drawn by the previous
25 crew, and also it's not necessarily you have to align your course

1 with a racon, so you have a choice. You might align with a racon
2 or the ship can pass, you know, beside the racon.

3 BY MR. HENRY:

4 Q. Okay. Captain Singh was the deck superintendent on the
5 voyage leaving Busan?

6 A. Correct.

7 Q. And he was Mr. Zhao's instructor in his duties and how
8 to use the equipment?

9 A. I wouldn't put it that way. I would say, like I said
10 earlier, he helped me with many things, but I also explained that
11 most of the time I read those documents myself, and he would
12 direct me to do something and help me with things, but I wouldn't
13 say he was an instructor.

14 Q. Did Captain Singh instruct Mr. Zhao or any of the other
15 crew members to his knowledge in how to deal with the U.S.
16 authorities and U.S. pilots, how to work with them, how to relate
17 to them?

18 A. Maybe not, maybe no.

19 Q. Okay. Was Mr. Zhao instructed to save -- following the
20 accident was Mr. Zhao instructed to save the VDR, Voyage Data
21 Recorder data?

22 A. Well, yes, the captain asked me to read the VDR manual,
23 but it was the first time for me to use it, so he asked me to read
24 the manual and try to save the data in there.

25 I tried to read it. I did not comprehend the information

1 and I didn't figure out how to do it.

2 Q. When was Mr. Zhao instructed by the captain to do this?

3 A. I just remember it was after the accident, but I don't
4 remember exactly on which day.

5 Q. Mr. Zhao was on watch before the accident, on the stern.
6 Was he aware of when the tug was supposed to be released?

7 A. That was not my -- that was not the concentration for my
8 attention. I would follow the order from the bridge. If I get a
9 command to release it, then I will do it.

10 Q. If we can go back to his first days onboard the Cosco
11 Busan in Busan. Could he tell me what were his major efforts,
12 handling cargo, familiarization? What was most of his time spent
13 doing?

14 A. Familiarization with the equipment.

15 Q. Did he have cargo loading duties?

16 A. Well, even if I had the duty, I would not go down on the
17 deck because the ship -- it was at night and the ship was going to
18 set sail the next morning, so I had to get everything ready,
19 prepare the chart and everything else, so I would be on the
20 bridge.

21 Q. So how many hours was he on the vessel before it sailed?

22 A. I don't recall.

23 Q. One day, two days?

24 A. Well, we were going to set sail the next day, the very
25 next day, so I would say my estimate is -- might be seven or eight

1 hours, so I just remember it's a very short period of time.

2 Q. Okay. Fleet Management has several orientation/
3 familiarization check-off lists that new mariners that report
4 aboard vessels are required to eventually sign. Three of them --
5 (Whereupon, the documents referred
6 to as NTSB Exhibits 1, 3, 4, and 5
7 were marked for identification.)

8 MR. HENRY: We'll be entering these into our exhibit
9 list.

10 BY MR. HENRY:

11 Q. The first one is QMS-11 and it's called Safety
12 Familiarization Card, and the expectation is that the mariner will
13 have completed this check-off list in 24 hours.

14 The second document is a QMS-13. Fleet Management calls
15 this a Record of Familiarization with Equipment, Machinery, Duties
16 and Responsibilities, and they expect the mariner to have
17 completed this check-off list within three days of reporting
18 aboard a vessel, and this is the form that Mr. Zhao signed.

19 The third form is a QMS-12A; it's titled Checklist for
20 Officers Familiarization and it includes a number of items such as
21 familiarization with ship or documents pertaining to quality and
22 safety management, familiarization with shipboard duties and
23 training pertaining to the security plan for deck officers,
24 operation of all deck equipment, operation of GMVSS, mooring,
25 unmooring, cargo gear, and Fleet Management's expectation is that

1 this form will be checked off and completed within two weeks of
2 the mariner reporting aboard, and this is Mr. Zhao's form for
3 that.

4 MR. HENRY: Does Mr. Zhao recognize each of these
5 forms?

6 THE WITNESS: These few forms, I don't really remember.
7 I don't really remember.

8 BY MR. HENRY:

9 Q. My question for Mr. Zhao is with the very limited time
10 onboard between the 24th and 25th, how was it possible that he was
11 able to have all three of these forms signed off before the vessel
12 sailed?

13 A. One of them says don't fill it out for two weeks. It's
14 not required for two weeks, so --

15 Q. Well, they're all dated the 24th and 25th, but my
16 question is how is that possible?

17 A. That I don't know. I think I signed the forms, but
18 apparently I didn't put down the dates. I don't know who put the
19 dates, but that I don't know.

20 Q. Okay.

21 MR. HENRY: That's all the questions I have.

22 MR. COMBS: Barry Strauch?

23 BY DR. STRAUCH:

24 Q. As I understand it, in China the Coast Guard has the
25 authority to close the port if the visibility is bad, is that

1 correct?

2 A. Correct, that's the case.

3 Q. In other countries the Coast Guard has that authority,
4 as well?

5 THE INTERPRETER: You mean Coast Guard?

6 DR. STRAUCH: Yes. I'm sorry.

7 THE INTERPRETER: Okay.

8 THE WITNESS: Other countries, I'm not sure, but I know
9 in China it's the case. Sometimes they would close the port.

10 BY DR. STRAUCH:

11 Q. Okay. So if the port is open, what is your assumption
12 about what the role of the Coast Guard has been in keeping the
13 port open?

14 A. That, I don't know. I don't know how to answer the
15 question.

16 Q. Well, you said earlier that the Coast Guard did not
17 close the port in San Francisco, so does that mean that you
18 assumed that the Coast Guard -- that it was okay with the Coast
19 Guard to depart in that visibility?

20 A. I don't know about this question because sometimes they
21 close the port. Then you can also sail. Sometimes they do not
22 close the port, but I just -- I don't know what their intention
23 was.

24 Q. Okay. You said you did not take the course in BRM. Do
25 you understand what BRM is, the basic concepts of BRM?

1 A. This is Bridge --

2 Q. Resource.

3 A. -- Resource Management?

4 Q. Yes.

5 A. I don't know. I just -- I don't know BRM. I just know
6 what -- I don't know about the BRM, but I think -- I know there
7 are some documents about a bridge team, and it also has the
8 information directing how to navigate -- how to be on watch and
9 report.

10 Q. Okay. And, as you understand it, what is a bridge team?

11 A. The three duty officers, the chief officer, the second
12 officer and the third officer, and also the AP, the helmsman.

13 Q. In Pilotage waters is a pilot a member of this team?

14 A. Well, I don't have much knowledge about that. You know,
15 I just know the -- you know, what I said earlier, but whether --
16 when he was onboard, whether he was part of the team or not I
17 don't know.

18 Q. You said that if you found examples of -- if you found
19 part of SMS that were impossible to follow, you would not follow
20 them, is that correct?

21 A. You know, I mentioned that some of the procedures were
22 impossible to follow. The professional requirements are very
23 detailed. It requires you to adopt some navigation means. For
24 example, when you see other ships sailing by, you know, if you
25 follow the rules, you have to judge if your ship's speed is safe

1 and if you're on a safe course. Well, I don't know. It's very
2 hard to describe.

3 What I mean is these minute details, if you follow every
4 details -- all the detail procedures, it's just impossible for you
5 to navigate the ship.

6 Q. Okay. Do other deck officers feel the same way you do,
7 what you just described, some of these SMS procedures that are
8 impossible to follow?

9 A. Correct. They would all have similar feelings.

10 Q. And how would you know that?

11 A. Well, because I know people do these things. I think
12 very few people can really follow it.

13 Q. Was there any SMS procedure on the Cosco Busan that you
14 found impossible to follow?

15 A. Well, I would like to repeat that I'm really not very
16 familiar with this SMS. I didn't really read it. The most
17 familiar -- the one that's most familiar to me is the bridge
18 checklist -- that we have to check the checklist on every ship.

19 And as for other parts, I really didn't spend much time
20 reading.

21 Q. In the previous vessels you were on as third mate, how
22 long did it generally take you to become knowledgeable of the SMS?

23 A. That's a very long process. As soon as I get onboard,
24 if I have some time, then I would spend the time reading it, but
25 it would be done very slowly.

1 Maybe I would read one part every day, but sometimes,
2 even up till the time I got off the ship, I still did not read
3 everything, but anything that's related to my own
4 responsibilities, I think I have read them.

5 Q. And what kind of time period are we talking about, a six
6 month duration?

7 A. Well, different ships will have different time periods.
8 On some shift it would be ten months. Sometimes it will be eight
9 months.

10 Q. In your view, how possible is it for anyone to become
11 familiar with the SMS in two weeks?

12 A. Well, I would like to say if you don't have any other
13 jobs to do, you don't have to do any other things on the ship, you
14 just sit down and read the document. It might take you maybe two
15 days or three days for you to finish it.

16 But, you know, everybody has their own jobs and will
17 have to do maintenance, will have to have navigation duty, have to
18 be on watch, and when we're on watch we're not allowed to read
19 anything.

20 And even after our shifts we still have to do other
21 things such as maintenance, so it's very hard to find the time to
22 sit down and read it, so that's why I say it's a very long
23 process.

24 Q. You said if you found something that was impossible to
25 follow you may talk to the captain or you may talk to somebody on

1 shore. How often have you discussed with anybody aspects of the
2 SMS that you found difficult to follow?

3 A. It's not very frequent. If it happens, then probably I
4 just asked the captain.

5 Q. Okay. And how often have you done that?

6 A. I don't understand. What do you mean how often?

7 Q. How often have you asked the captain about an SMS
8 procedure?

9 A. I think -- it's not very often.

10 Q. You said you had about a ten minute interview with Fleet
11 Management. You worked for five other companies before you joined
12 Fleet Management. How long were the interviews that you had with
13 those five companies?

14 A. I would like to clarify. Besides Fleet, I worked for
15 four other companies.

16 Q. Okay.

17 A. And you asked me how those interviews last. I can only
18 answer I don't remember because that's been so long and I don't
19 remember how long they took.

20 Q. Were you interviewed by each of those four companies?

21 A. Not each of them. I would say only one or two.

22 Q. Does that one or two include Fleet Management?

23 A. Not including Fleet Management.

24 Q. Would you say it was unusual to be interviewed by a
25 company?

1 A. Well, if I explain to you in this way, maybe it's hard
2 for you to understand because, you know, that's the special
3 situation in China. If we were given an assignment to work for
4 some foreign shipping companies, big companies, they would ask
5 questions, give us an interview, and we had to pass the interview
6 in order to be employed by those companies.

7 But there are some small shipping companies in China.
8 They want business and they need crew members, and sometimes they
9 would not interview us, just our company, the manning company,
10 recommended us and we would just work for them.

11 You know, we do not decide whether we'll be interviewed
12 or not. It does not happen all the time, but it's -- but
13 interviewing is not something unusual.

14 Q. Okay. Now even though you're on the vessel for just a
15 short period of time before the accident, given all of the
16 interactions you had with Fleet Management, was that enough time
17 to form an opinion about the company?

18 A. Well, I do not have an opinion of the company because
19 the time was really short and I was not able to form an opinion.

20 Q. In the time you worked for them before the allision, did
21 Fleet Management ask you to do anything that you thought was
22 unreasonable?

23 A. Well, on every ship I've worked -- you know, different
24 shipping companies, they all have the problem of giving excessive
25 work load, and so nowadays these shipping companies in operation,

1 they all have the problem. They give us orders and we have to
2 follow orders.

3 If we do not do that, we will face unemployment, so if
4 you're not familiar with the business, so probably it's hard for
5 you to understand it.

6 Q. Was there anything that Fleet Management did, the way
7 they managed the vessel, that was different in any way from your
8 experiences with other companies in what they asked you to do?

9 A. Every company might have different requirements or have
10 different requests, so it's very hard for me to list what the
11 difference that this ship had, so -- because every ship is
12 different.

13 Q. Did Fleet Management ask you to do anything that you
14 thought was not safe?

15 A. That comes back to the issue what is safe, what is not
16 safe. It's hard to say.

17 Q. Okay. When all this ends, if you had the opportunity to
18 work for Fleet Management again, would you?

19 A. I think maybe not. It's not that I have any bias
20 against this particular company. Just -- I feel a little fed up
21 with this same career.

22 Q. So it's nothing against this one company, it's just
23 sailing, in general?

24 A. Different companies have their own systems. They all
25 want you to follow their systems, to handle their safety issues,

1 and they all want to make money, so I have to follow order no
2 matter what ship I get on, and in every shop there will be issues
3 that I feel is unfair, unjust. That happens with every company.
4 So I'm really -- I feel -- I'm tired of this job and I'm looking
5 for other opportunities.

6 Q. All right.

7 DR. STRAUCH: I have no further questions.

8 BY MR. HOLLY:

9 Q. Rick Holly here again. I'd like to talk a little bit
10 about bridge manning. In your previous four ships could you
11 describe the number of people on the bridge and what they do? For
12 example, third officer, master, helmsman, whoever was on the
13 bridge during entering port and leaving port?

14 A. Normally on the bridge there will be the captain, the
15 helmsman and the officer of the watch. Normally, it will be the
16 third officer and also the pilot.

17 And on the bow normally the chief officer will be
18 stationed at the bow and also the bosun -- and crew members, and
19 also normally the bosun would be at the bow, and at the stern
20 would be the second officer and the crew members.

21 Q. Okay. And would that change in any way in restricted
22 visibility?

23 A. In restricted visibility that would not change.
24 However, somebody might be assigned to go to the stern to conduct
25 lookout at the bow, and also assign somebody to conduct lookout at

1 the side of the bridge.

2 Q. Okay. In your experience in your previous four ships
3 was there any occasion where another officer augmented the bridge
4 team under any circumstances?

5 A. You mean augment --

6 Q. Augment --

7 A. What do you mean?

8 Q. For example, would the second officer ever go to the
9 bridge after his duties casting off the tug -- the stern were
10 complete?

11 A. Yes, sometimes he would.

12 THE INTERPRETER: No. Interpreter did not answer -- did
13 not understand his answer. I need to clarify with him. But I
14 didn't understand the first part, so let me interpret the first
15 part.

16 MR. HOLLY: Okay.

17 THE INTERPRETER: Then I'll ask him to --

18 THE WITNESS: Sometimes that would happen. When the
19 ship was leaving port, after the second officer cast off the lines
20 and untied to tug, sometimes he would come to the bridge because
21 he need to do some calculation and collect some data.

22 THE INTERPRETER: And interpreter would ask Mr. Zhao to
23 continue.

24 THE WITNESS: Sometimes it was the second officer's turn
25 to be on watch or the third officer's turn to be on watch, so he

1 has to come to the bridge to replace that person.

2 BY MR. HOLLY:

3 Q. Okay. But in restricted visibility now, speaking about
4 the bridge team, has there been any time in your career as third
5 mate or second mate that you have seen the second officer assist
6 in navigation on the bridge in port?

7 A. I don't think so. On some occasions they might ask a
8 seaman to conduct lookout outside the bridge.

9 Q. Okay. So I just want to understand this correctly. So
10 either restricted visibility or restricted waters or both, a third
11 mate is responsible for monitoring the helmsman, controlling the
12 ship's engines and fixing the navigational position of the ship,
13 is that correct?

14 A. I would say not only the third officer. It's the
15 officer of the watch. Sometimes when a ship is sailing to a port,
16 if the ship is still far away from the port, then it would be --
17 that officer of the watch would be responsible for those things,
18 and after the pilot got onboard, if the ship is still far away
19 from the dock, it would be still that officer of the watch.

20 When the ship is close -- is getting close to docking,
21 then probably the chief officer or the second officer who was the
22 officer of the watch, they would come down and the third officer
23 would come over and do the job.

24 Q. Okay. But, still, there's -- there's still only the
25 master, the third mate and the helmsman?

1 A. What time period are you referring to?

2 Q. As you're approaching the dock -- leaving the dock.

3 Right, correct?

4 A. Correct.

5 Q. Thank you.

6 MR. HOLLY: I have no further questions.

7 MR. HENRY: If I could just raise a point. We'd like to
8 finish this second round of questioning. We've been at this now
9 for two hours. You want to take a short break and then complete
10 the cycle? No?

11 UNIDENTIFIED SPEAKER: I vote no break.

12 MR. HENRY: Anybody -- does anybody need a break?

13 UNIDENTIFIED SPEAKER: -- does. I need a break.

14 UNIDENTIFIED SPEAKER: Are we braking or not?

15 UNIDENTIFIED SPEAKER: No break.

16 UNIDENTIFIED SPEAKER: I think not.

17 UNIDENTIFIED SPEAKER: No break. We're going to
18 continue.

19 (Off the record.)

20 (On the record.)

21 MR. COMBS: Let's see, it's Steve's turn.

22 UNIDENTIFIED SPEAKER: You're up.

23 BY CAPT. BROWN:

24 Q. Steve Brown representing the American Pilots
25 Association.

1 A. Okay.

2 Q. You mentioned earlier that you filled out a Passage Plan
3 after the accident.

4 A. Um-hum.

5 Q. Was there one prior to the accident?

6 A. Yes.

7 Q. Did he amend that Passage Plan or did it get thrown
8 away?

9 A. Well, no. The original one was just kept there and I
10 prepared a new one.

11 Q. So they were both there?

12 A. Um-hum.

13 Q. Scooting ahead, for the first several days, first three
14 days after the accident, did he assume his normal duties again,
15 meaning standing bridge watch, whether at anchor or offloading
16 containers?

17 A. Of course, I needed to carry out my normal duties.

18 Q. And did he observe in those few days anybody come
19 onboard and do some tuning or checking of the radar or the ECDIS?

20 A. I did not. Well, a lot of people got onboard, many,
21 many people, people from many agencies.

22 Q. Many, many people?

23 A. Oh, yeah. They would come on the bridge and the
24 superintendent would be accompanying them.

25 Q. Okay. But he did not observe anyone himself? He did

1 not observe anyone, a radar tech or ECDIS professional, working on
2 those machines? I'm not talking Coast Guard.

3 A. I'd like to first explain. I did not pay attention
4 because when they got onboard it's the superintendent who was
5 accompanying them and I did not pay attention to what they did,
6 and I did not observe anybody -- I just did not pay attention to
7 them.

8 Q. Okay. And -- that's fine. Thank you.

9 MR. BROWN: No further questions.

10 MR. COMBS: Rick?

11 MR. HOLLY: I've already gone.

12 MR. COMBS: Oh.

13 BY CAPT. MOLONEY:

14 Q. Pat Moloney, Pilot Commission. Would you agree that
15 fixes should have been taken that morning often enough to make
16 sure that the bridge team could have been alerted that the ship
17 was going off course?

18 A. You mean taking fixes frequently so that the deviation
19 -- the ship's off course -- being off course can be found out?

20 Q. Yes.

21 A. Well, that's hard to say. Well, theoretically, if you
22 take fixes frequently, you might be able to find that the ship is
23 off course, but if you ask me to comment on what happened that
24 morning, it's very hard for me to do so.

25 Q. Would it be reasonable to expect the third mate to be

1 able to perform all of those duties mentioned before and still get
2 fixes frequently enough and with enough accuracy to be able to do
3 that sort of thing?

4 A. Well, I think, Captain, you have raised this issue and I
5 have explained earlier that sometimes it's just impossible for us
6 to do all the things based on the requirements of the company's
7 documents, to do all the things at the same time.

8 If we do all these things at the same time, then it's
9 not possible for us to do other duties such as lookout or any
10 other important duties.

11 Q. Thank you.

12 CAPT. MOLONEY: I have no further questions.

13 CAPT. HURT: Rick Hurt, San Francisco Bar Pilots, and I
14 have no questions. Thank you.

15 CAPT. WHEATLEY: Ross Wheatley, Coast Guard. I have no
16 questions at this time.

17 MR. GREENBURG: Captain Aga, are you there?

18 CAPT. NARANAJA: Yes, Mr. Henry, I am here, yeah.

19 MR. GREENBURG: All right.

20 CAPT. NARANAJA: I have one or two follow-up questions.

21 BY CAPT. NARANAJA:

22 Q. Mr. Zhou, can racons be fixed on buoys, lighthouses or
23 any other objects in your experience?

24 A. I don't have much relevant experience, but my feeling is
25 a racon can be fixed on a buoy.

1 Q. How about a lighthouse?

2 A. Lighthouse -- that, I'm not sure. I think it might be
3 possible.

4 Q. Okay. Would it be then reasonable not to go -- put a
5 course onto the racon or just pass it by the side? Is that a good
6 course to follow, he being the safety navigation officer?

7 THE INTERPRETER: Sorry, Captain.

8 CAPT. NARANAJA: Okay.

9 BY CAPT. NARANAJA:

10 Q. If you put a course, if you chart a course passing the
11 racon a little bit away from the racon, would that be an okay
12 course to follow given that the racon can be put on the buoy?

13 A. Correct.

14 Q. Okay. In Pilotage waters, in his experience, who has
15 the best knowledge of where the different markers are placed? Is
16 it the pilot or the crew?

17 A. It should be the pilot.

18 Q. Okay, one last question. The superintendent, Captain
19 Singh, did he do any training for the U.S. Coast Guard CSE (ph.)
20 inspection on the passage from Putan to Long Beach?

21 A. Well, not only to me. I think to all the officers, crew
22 members. I think he mentioned that because we were going to enter
23 U.S. waters and we had to pass inspections.

24 Q. Okay. Did they have a CSE inspection at Long Beach?

25 A. I don't remember clearly now. I don't remember whether

1 we had an inspection or not.

2 Q. Okay. Thank you.

3 CAPT. NAGARANAJA: I have no further questions.

4 MR. HENRY: Well, that concludes the formal questioning.

5 That being said, I think we can go off the record.

6 (Whereupon, at 6:00 p.m., the interview in the above-
7 entitled matter 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: M/V COSCO BUSAN/BRIDGE ALLISION
 SAN FRANCISCO, CALIFORNIA
 Interview of Shun Biao Zhao

DOCKET NUMBER: DCA-08-MM-004

PLACE: San Francisco, California

DATE: December 1, 2008

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.

Sussy Morehouse
Reporter

Cheryl L. Phipps
Transcriber