Under 46 U.S. Code §6308, no part of a report of a marine casualty investigation shall be admissible as evidence in any civil or administrative proceeding, other than an administrative proceeding initiated by the United States.

U.S. Coast Guard Marine Board Investigation ICO the sinking of SS El Faro held in Jacksonville, Florida held

25 February 2016

Volume 9

CAPT Neubauer: Good morning. This hearing will come to order. This hearing will come to order. Today is February 25th, 2016 and the time is 9 a.m. We are continuing at the Prime F. Osborn Convention Center, in Jacksonville, Florida. I am Captain Jason Neubauer, of the United States Coast Guard, Chief of the Coast Guard Office Investigations and analysis, Washington D.C. I'm the Chairman of the Coast Guard Marine Board of Investigation and the presiding officer over these proceedings. The Commandant of the United States Coast Guard has convened this board under the authority of Title 46, United States Code, Section 6301 and Title 46 Code of Federal Regulations Part IV to investigate the circumstances surrounding the sinking of the SS El Faro with the loss of 33 lives on October 1st, 2015 while transiting East of the Bahamas. I am conducting the investigation under the rules in 46 C.F.R. Part IV. The investigation will determine as closely as possible the factors that contributed to the incident so that proper recommendations for the prevention of similar casualties may be made. Whether there is evidence that any act of misconduct, inattention to duty, negligence or willful violation of the law on the part of any licensed or certificated personnel contributed to the casualty, and whether there is evidence that any Coast Guard personnel or any representative or employee of any other Government agency or any other person caused or contributed to the casualty. I have previously determined that the following organizations or individuals are parties in interest to the investigation.

Tote Incorporated, ABS, Herbert Engineering Corporation (HEC) and Mrs. Teresa Davidson as next of kin for Captain Michael Davidson, Master of the SS El Faro. These parties have a direct interest in the investigation and have demonstrated the potential for contributing significantly to the completeness of the investigation or otherwise enhancing the safety of life and property at sea through participation as party in interest. All parties in interest have a statutory right to employ counsel to represent them, to cross-examine witnesses and have witnesses called on their behalf.

I will examine all witnesses at this formal hearing under oath or affirmation and witnesses will be subject to Federal laws and penalties governing false official statements. Witnesses who are not parties in interest may be advised by their counsel concerning their rights. However, such counsel may not examine or cross-examine other witnesses or otherwise participate.

These proceedings are open to the public and to the media. I ask for the cooperation of all persons present to minimize any disruptive influence on the proceedings in general and on the witnesses in particular. Please turn your cell phones or other electronic devices off or to silent or vibrate mode. Please attempt to minimize entry and departure during testimony. Flash photography will be permitted during this opening statement and during recess periods. The members of the press are welcome and an area has been set aside for your use during the proceedings. The news media may question witnesses concerning the testimony that they have given after I have released them from these proceedings. I ask that such interviews be conducted outside of this room. Since the date of the casualty the National Transportation Safety Board and Coast Guard have conducted substantial evidence collection activities and some of

that previously collected evidence will be considered during these hearings. Should any person have or believe that he or she has information not brought forward, but which might be of direct significance, that person is urged to bring that information to my attention by emailing elfaro@uscg.mil. The Coast Guard relies on strong partnerships to execute its missions. And this Marine Board of Investigation is no exception. The National Transportation Safety Board, provided a representative for this hearing. Mr. Tom Roth-Roffy, seated to my left is the Investigator in Charge for the NTSB investigation. Mr. Roth-Roffy, would you like to make a brief statement?

Mr. Roth-Roffy: Good morning Captain, thank you. Good morning, I am Tomas Roth-Roffy, Investigator in Charge for the National Transportation Safety Board's investigation of this accident. The NTSB has joined this hearing to avoid duplicating the development of facts. Nevertheless, I do wish to point out that this does not preclude the NTSB from developing additional information separately from this proceeding if that becomes necessary. At the conclusion of these hearings the NTSB will analyze the facts of this accident and determine the probable cause independently of the Coast Guard. Issue a separate report of the NTSB's findings and if appropriate issue recommendations to correct safety problems discovered during the investigation. Thank you Captain.

CAPT Neubauer: Thank you. We will now call our first witness of the day. Mr. Jamie Torres, former Chief Mate on the El Faro. Mr. Torres please come forward to the witness table and Lieutenant Commander Yemma will administer your oath and ask you some preliminary questions.

LCDR Yemma: Can you raise your right hand, sir. A false statement given to an agency of the United States is punishable by a fine and or imprisonment under 18 United States Code section 1001. Knowing this do you solemnly swear that the testimony you're about to give will be the truth, the whole truth and nothing but the truth, so help you God?

WIT: Yes, sir.

LCDR Yemma: Thank you, please be seated. Sir, could you please start by stating your full name and spelling your last name for the record?

WIT: Jamie Torres, T-O-R-R-E-S.

LCDR Yemma: And counsel could you also state your name and spell your last for the record please?

Counsel: Robert Birthisel, Hamilton, Miller and Birthisel, B-I-R-T-H-I-S-E-L.

LCDR Yemma: Thank you, sir. Mr. Torres, what is your employment and current position?

WIT: My current position is Second Mate, Second Officer with Tote Services.

LCDR Yemma: And what are some of your responsibilities in that position?

WIT: Some of my responsibilities as Second Officer, uh I would be uh in charge of the voyage planning. In addition to that I would do general upkeep and maintenance of equipment on the bridge. Also I would do some safety inspections on the deck as appointed by the Chief Mate. In addition to standing a watch on the bridge as well as cargo operations.

LCDR Yemma: And can you also describe for the board some of your prior relevant work experiences?

WIT: Okay. Prior work experience, initially I worked on car carriers for a couple of years upon graduation from Fort Schuyler Maritime Academy. From then I transitioned into what was Interocean American Shipping and I commenced with working on the El Yunque as Second Mate. From there I was ascended promoted to the Chief Mate on the El Morro. And then from then I was transferred on to the El Faro as the Chief Mate.

LCDR Yemma: And what is your highest level of education completed?

WIT: Bachelors of Science in marine operations. And a Master unlimited license.

LCDR Yemma: Thank you.

CAPT Neubauer: Commander Denning.

CDR Denning: Good morning Mr. Torres.

WIT: Good morning.

CDR Denning: Just to provide some context to your testimony today I want to go through basically some of your positions leading, for the last year prior to the accident voyage. Over most of that year you served as a permanent Chief Mate on the El Faro, correct?

WIT: Yes, sir.

CDR Denning: And you normally alternated with Raymond Thompson, is that true?

WIT: Yes, sir.

CDR Denning: During that year you were primary – you were mostly on opposite schedules with Captain Davidson and really only served with for approximately one month, is that correct?

WIT: That's correct.

CDR Denning: So your observations here are going to focus primarily on your role as Chief Mate on El Faro. It's very important testimony here. The primary – the two primary focus areas for your testimony are going to be the stability calculations on El Faro and Dr. Stettler to my left is going to lead that particular line of questioning. At the end of that particular line on stability all the parties in interest and the board will ask questions specific to that topic. And then we're going to move along to another focus area which is cargo securing and lashing. And Mike Kucharski from NTSB is going to lead that particular line of questioning and then we'll go around for all the parties in interest again. So again your testimony is extremely important as your observations as Chief Mate on El Faro. With that I would like to pass to Dr. Stettler unless Captain has additional comments.

CAPT Neubauer: Mr. Torres I just want to say it's going to be a fairly long session so please just let us know if you need a break at any time.

WIT: Yes, sir.

CAPT Neubauer: Dr. Stettler.

Mr. Stettler: Thank you Captain. Thanks for coming Mr. Torres. We understand looking at the ship's logs that you were on board the El Faro for a total of approximately 4 months during the year from October 2014 through July of 2015. Does sound about right?

WIT: Yes, sir.

Mr. Stettler: So I would like to in the following questions I would like you to focus in your role as Chief Mate on the El Faro. However, if you are aware of any procedural changes which have occurred since the loss of the El Faro or if you're aware of any

differences in procedures between those on the El Faro and those on the El Yunque, we would appreciate you highlighting those, but please specifically state those as differences.

WIT: Okay.

Mr. Stettler: I would like to start a line of questioning as Commander Denning mentioned associated with the loading and stability assessment of the vessel. I would like to focus primarily on the departures from Jacksonville to San Juan. First could you please briefly describe your duties or the Chief Mate's duties while in port? Again specifically focusing on Jacksonville please.

WIT: Okay. As far as duties in port in Jacksonville, generally on the day of arrival you typically meet, I typically meet with Don Matthews and discuss the plan of the day. Specifically how much cargo we take on board, what our ballast would be and if there is anything – if there was anything specific we needed to discuss for the operation for the day. Of course initially we discharge what we would bring from San Juan and then on the following day, or the beginning of that evening we would start the load out for Jacksonville. On the actual departure day I would basically day work where the Second and Third Mate would stand a 6 and 6 watch. And I would supervise the cargo operations throughout the day. Towards the end of the day once the loading was complete or near completion Mr. Don Matthews would come down to the dock and hand over the trim and stability calculations as far as the stowage plans. And in addition to that we would also take drafts of the vessel.

Mr. Stettler: Okay, thank you very much. I'll ask some questions now that will get into a little more detail on each of those. Could you highlight any additional tasks you

mentioned basically during the day that you're supervising the loading? Are there any specific tasks that the Chief Mate is responsible for in terms of assessing the loading on the vessel in terms of its weight and stability parameters prior to Mr. Matthews's arrival in the afternoon or the evening?

WIT: Throughout the day as it came to the loading I would generally make rounds about the deck and make sure that containers were stowed properly in addition to cars and trailers on the second deck, being stowed properly as well.

Mr. Stettler: Thank you. Could you please discuss a little bit more about what the tasks that Chief Mate completes after Mr. Matthews arrives? I understand he comes down to the vessel with a package, a loading package which includes stow plans, hazardous cargo manifests, reefer manifests and a print out from the stability and loading software CargoMax, which we'll get into a little more detail here shortly, as well as a flash disk which contains the electronic file. Could you please discuss in a little bit of detail what steps or what your process is or procedure from that point until the vessel gets underway?

WIT: Okay. As soon as I receive the paperwork from Don Matthews, the package as you will. I would typically head up into my office and load the flash drive onto the Chief Mate's computer in the office. At that point I would verify from containers, ro-ro, the entire load out and go through the stowage plans for each and verify that everything was entered correctly. Once I verified that all the weights and everything was stowed properly I would then verify the trim and stability summary page and make sure that all the parameters were correct and that the vessel was safe to sail.

Mr. Stettler: Okay, thank you. You also mentioned draft readings. Could you please describe the procedure utilized for measuring drafts of the vessel?

WIT: At the end of the load out when cargo was complete typically Don Matthews would come down in his truck and we would drive down the dock and take the forward draft, the after draft and the starboard mid ships draft. At that point typically the Second Mate would be asked by myself to read the port side mid ships draft.

Mr. Stettler: Could you get into a little more detail perhaps on the port side draft reading, the outboard draft readings? Have you verified that you could read those outboard drafts yourself? Have you taken those drafts yourself?

WIT: Yes I have. On the El Faro the port side mid ship draft reading were difficult to read from the second deck due to the windows and how they were configured. The port side mid ship draft was read from the main deck where you would stand over the bottom rung on the rail and look over the side.

Mr. Stettler: And how accurately in your estimation do you feel that you could read those drafts within how many inches on a typical day?

WIT: I would say it was accurate enough that we could see precisely what the actual draft was.

Mr. Stettler: Okay. What would happen at night when it was dark?

WIT: If for some reason the Second Mate could not read the port side mid ships draft, over the radio the Captain would be notified where he would be on the bridge with the pilot and he would request the pilot to call the tug to light up the port side mid ships draft so that the Second Mate could read it.

CAPT Neubauer: Sir, was there an understanding that if the vessel was at – did not have any list that the draft marks, the outboard draft marks would not have to be taken?

WIT: There was an understanding, but they were read anyway.

CAPT Neubauer: Dr. Stettler.

Mr. Stettler: Do you recall the condition of the draft marks on the El Faro the last time you saw the vessel? Were there any irregularities, were they all located correctly from what you could assess?

WIT: Located correctly? Which ones are you speaking of?

Mr. Stettler: There was, earlier last week, earlier in the hearings there was some discussion on the El Yunque about some irregularities with draft marks in terms of mid ship draft specifically due to an issue with the hull cutting and how they've been reapplied. Were there any – are you familiar with that issue on the El Yunque?

WIT: I can't recall specifically what that was.

Mr. Stettler: Okay, thank you. When and how was the water salinity, or water density measured?

WIT: Okay.

Mr. Stettler: Could you discuss that please?

WIT: Before Don Matthews would come down to the dock typically I would go down to the dock with a bucket with a line on it and aft of the house I would drop the bucket in the water, retrieve it and use the hydrometer to determine the specific gravity of the salinity of the water.

Mr. Stettler: Could you discuss for both drafts, you measured drafts, you measured water density or salinity, could you discuss how you incorporated, how the Chief Mate specifically incorporates that information into the loading and stability assessment?

WIT: Okay. Once I'm in the office verifying the trim and stability summary, in the CargoMax software under options you can apply the salinity and verify and compare what the drafts are with the salinity in it.

Mr. Stettler: Do you use that – what about drafts, how do you apply the drafts?

WIT: Once you enter the salinity into CargoMax you can compare the actual drafts that CargoMax gives you versus the visual drafts that were taken.

Mr. Stettler: Do you ever type those drafts into CargoMax for any reason?

WIT: Type them, no.

Mr. Stettler: Would the draft readings, the measurements of drafts and the measurement of salinity or water density be included in any of the ship's documentation such as ship's logs?

WIT: Yes, sir.

Mr. Stettler: Okay. Always?

WIT: I don't recall specifically whether it was always on there, but that was the intention, yes.

Mr. Stettler: Okay. Was that your routine to include that information in the ship's logs?

WIT: Typically the Second Mate would complete the log. Or the Third Mate, whoever was on the bridge at the time departure.

Mr. Stettler: And how would they get that information?

WIT: The salinity would be radioed up by myself or I would call it up and they would write in the log book as well as – log book at the end of the day.

Mr. Stettler: Was fuel or bunkers usually taken aboard the El Faro in Jacksonville prior to departure? Is that a normal thing?

WIT: Yes, sir.

Mr. Stettler: When fuel was taken aboard, specifically in Jacksonville, were the fuel tanks usually filled completely or were they left partially filled or slack? And if so why would that be?

WIT: The fuel tanks were, to my recollection left partially slack. And the reason for that is it was typically customary that we carried 8500 barrels and that was enough for the voyage in addition to keeping 25 percent as a precaution.

CAPT Neubauer: Sir, are you familiar with the vessel's trim and stability book?

WIT: Yes I am.

CAPT Neubauer: Are you familiar with the phrase in that book that the tanks should be pressed up?

WIT: Yes I am.

CAPT Neubauer: Was it your understanding that slack tanks would add free surface effect to the vessel?

WIT: It is my understanding yes that the slack in the tanks would add free surface to the vessel. But it is also my understanding that's calculated within CargoMax.

CAPT Neubauer: So in your summary you trusted the CargoMax program to take into effect on GM and disregarded the trim and stability book recommendation?

WIT: CargoMax was designed by the Naval Architects and approved by ABS. And yes the free surface was accounted for, for slack tanks and we would trust CargoMax.

CAPT Neubauer: So you're saying that CargoMax was the priority over the trim and stability book?

WIT: CargoMax is a tool for the ship's officers to calculate the trim and stability for the vessel, yes.

CAPT Neubauer: And if CargoMax and the trim and stability book were different you would go by CargoMax for a certain provision like pressing up the tanks?

WIT: Can you repeat the question please?

CAPT Neubauer: If CargoMax calculations showed a GM level that was acceptable then you were under the impression that it was okay to disregard the trim and stability book.

WIT: Because the free surface was accounted for, yes, we would trust CargoMax.

CAPT Neubauer: Thank you.

Mr. Stettler: Mr. Torres I would like to follow up on that a little bit. Could you, in my mind taking on – filling those tanks would be important since they're low in the vessel and filling them would increase weight and increase the stability of the vessel. Could you comment on why what would be the rationale for not filling them when you're bringing on fuel? Was there a reason for that?

WIT: The only reason that I could think of was to distribute the weight. Instead of having possibly just one tank filled they distributed the weight between two tanks. That's the only reason I could think of.

CAPT Neubauer: Mr. Torres, but is your understanding though, if the tanks were full that would be a positive for stability rather than having them slack?

WIT: Yes. To have the tanks full would be a positive for stability, yes, sir.

CAPT Neubauer: So what would be the reason for slacking the tanks in your estimation, or your analysis?

WIT: The only reason I could think of for why the tanks were slack is because we didn't need that much fuel to complete the voyage for the week.

CAPT Neubauer: Are you ever aware of a circumstance where the fuel was cheaper in San Juan and you didn't – were told not to fuel full in Jacksonville for that reason?

WIT: No, sir, I'm not aware of any circumstance.

CAPT Neubauer: Are you aware of a circumstance where the vessel was trying to carry more cargo so fuel was taken off, or not loaded on?

WIT: No, sir, not at all.

CAPT Neubauer: Thank you. Dr. Stettler.

Mr. Stettler: When you took on fuel there's a fuel report I've seen in the logs that when you're in Jacksonville, how is the density or specific gravity of the fuel that's loaded and incorporated into the stability assessment, and since you've already mentioned you rely on CargoMax, how would you update or incorporate that information into CargoMax?

WIT: If I recall correctly the specific gravity for the fuel was already accounted for in CargoMax.

Mr. Stettler: Did you ever check or compare or make any changes to that density value to account for the fuel that was actually loaded on the vessel?

WIT: No I don't believe I did.

Mr. Stettler: Thank you. When Mr. Matthews would bring down the loading documentation which included a CargoMax printout as you mentioned and the file on the flash disk, how often since you were on board for 4 months so that would be somewhere in the order of 16 or so departures from Jacksonville, were there any occasions when corrections were made or changes were made to that Mr. Matthews information prior the vessel getting underway? For example if cargo were still being moved around or loaded?

WIT: There might have been one instance where a correction needed to be made, and if that was the case it would basically been seen by me, addressed with Don Matthews and corrected.

Mr. Stettler: Was it normally the case that the cargo loading and movement would be complete at the time Mr. Matthews would come down to the ship?

WIT: Yes, sir.

CAPT Neubauer: Sir, was there ever an occasion where the final loading plan you deliver – or you received on the vessel was different after you got underway?

WIT: There might have been an instance where there might have been a minor typo where it needed to be corrected on board.

CAPT Neubauer: How was that process conducted, sir?

WIT: I would go up to my office verify it, and if the typo was found I would correct it and notify Don Matthews so that he would make the same change.

CAPT Neubauer: Can you explain what kind of typo? Like an example.

WIT: If a – for example say a container weighed 20 tons and he might have wrote in 22, correction as such.

CAPT Neubauer: How did you catch that mistake, sir?

WIT: By looking at the stowage plans and looking at the box weights for every single piece of cargo loaded on the vessel.

CAPT Neubauer: Sir, did you ever have an occasion to work a loading plan with Mr. Rodriguez?

WIT: Yes, sir.

CAPT Neubauer: How many times did that occur, sir?

WIT: I couldn't estimate. More than a few.

CAPT Neubauer: More than a few.

WIT: Yes, sir.

CAPT Neubauer: Did he accompany you for the salinity readings and also the draft mark readings, can you remember?

WIT: The salinity readings, no. I would take that on my own. For the draft marks and the visual draft mark readings, yes, he would typically accompany me for that.

CAPT Neubauer: When you say typically, how often?

WIT: I couldn't give you a number.

CAPT Neubauer: Do you remember times when he did not accompany you for those readings?

WIT: No I can't recall a specific instance where he would not.

CAPT Neubauer: Can you recall any instance where he wasn't with you?

WIT: No I couldn't.

CAPT Neubauer: Thank you. Dr. Stettler.

Mr. Stettler: We've been discussing CargoMax and how you utilize that for your stability and loading assessment. In your experience how accurate has the CargoMax prediction of drafts and vessel lists been in comparing to your predicted values in CargoMax versus the observations, the draft readings you take and the list angle you determine?

WIT: Okay, as far as the list angle, CargoMax did show a consistent list different from what the ship was seeing. So for example at the end of the day once we completed cargo operations, both in Jacksonville and San Juan and the ship was straight up and down meaning there was no list, CargoMax did show what appeared to be a consistent starboard list.

Mr. Stettler: Could you estimate the magnitude of that?

WIT: It was possibly less than a degree in San Juan and a consistent 2 degree in Jacksonville.

Mr. Stettler: Could you – can you explain, well let me follow up with that. Were there any consistent differences in the draft readings or predicted drafts?

WIT: There were also some differences in the drafts and yes they were consistent.

Mr. Stettler: Could you explain why those differences might have existed and did that concern you as Chief Mate?

WIT: As far as list goes initially when I noticed it I did speak to Captain Axelsson at the time where he I believe spoke to Don Matthews about it and Don Matthews specified that he was aware of it. And that he would take it into account when loading cargo on the vessel. And also at the end of the day we were certain and we knew that the ship would leave straight up and down. We had the inclinometer to verify it as well as our

mid ships drafts to make sure that there was little or no list on the vessel. As far as the draft marks go, like I said there was some consistency where there was a slight error in the draft marks. And I also believe that Captain Axelsson addressed with Don Matthews. And we made sure that we verified our mid ships drafts so that we knew that we weren't exceeding the limits of the vessel.

Mr. Stettler: Thank you. I would like to draw your attention to Exhibit 088. I'll give you a minute to pull this out. And Mr. Torres, while he's turning to that page, I'll just highlight, you mentioned using the trim and stability summary page from CargoMax in your final assessment prior to the vessel departing when you got up to your stateroom. So this is a what I'll call a typical departure condition. This is one that was actually from the departure voyage 178 South which was August 11th, departure from Jacksonville. The time and date printed which is printed in the upper right hand's corner of the summary is 2128 on the 11th of August, 2015. So this was the final departure for that day and you can see at the bottom the signatures of the Chief Mate and the Master on that date indicating that they had reviewed this trim and stability summary. As I mentioned I know you were not aboard during this voyage, but I would just like to use it as an example for discussion to discuss what a few of the things are that the Chief Mate's look for.

WIT: Okay.

Mr. Stettler: First of all could you just explain, you started to explain what basically the trim and stability tells you. Could you talk a little bit about this particular sheet? You mentioned parameters, could you highlight the important parameters that you as Chief

Mate would look at prior to the vessel getting underway to assess the stability of the vessel and the loading of the vessel?

WIT: Okay. Once the ship – the calculations were completed and reviewed we would print out the page and we would look at the GM margin to make sure that it was adequate. So if you compare the corrected versus the required we wanted to make sure that we had enough GM margin over and above the required for the transit. In addition to that we would look at our bending moments, showing here for example that the vessel was hogging. In addition to that you would look at your trim to show what the CargoMax was showing in addition to comparing your marks, your forward, aft marks and your mid ships marks to what was actually visually taken. Also you would look at your dead weight.

Mr. Stettler: Okay. Dead weight was not specifically written on this sheet. Where do you get the dead weight?

WIT: The dead weight would be something that would be verified through the software.

Mr. Stettler: I correct – for correction I stated -- the dead weight is actually on here.

WIT: That is correct, yes.

Mr. Stettler: But you – is there something else that you're looking at? What are you comparing the dead weight to?

WIT: We would be looking at the – the – basically available dead weight for the – for the condition for the departure.

Mr. Stettler: And where does that – so that's not on this sheet, where does that come from?

WIT: That is an option you can see on the CargoMax software.

Mr. Stettler: Okay. I would like to ask you about a few of these. You mentioned a couple of key parameters, one being the GM margin. Could you explain what GM margin represents and perhaps on this sheet there are – there's several G values of GM listed. There's a GM or a GMT, GM corrected, GM required and GM margin. Could you just highlight what the differences are between those values?

WIT: Okay. The GM corrected is the actual GM of the vessel. The GM required is the minimum GM required for the vessel to maintain positive stability. The GM margin is the difference between the corrected and the required.

Mr. Stettler: Where does the – what specifies or what limits the required GM, where does that value come from?

WIT: That comes from the trim and stability booklet. The GM required curve.

Mr. Stettler: You also mentioned available dead weight. What does that limit? Or what's the limitation other than that available dead weight, obviously would have to be a positive value above zero, zero or more, what limits that? What physical parameter on the ship limits that value? Is there anything else on here that would indicate to you that you're within your available sailing drafts for example?

WIT: The mid ships marks would be the determining parameter as far as dead weight and whether or not the ship has exceeded its parameters or not.

Mr. Stettler: What parameter is that, do you know? What draft, what is that actually setting? What's the limitation?

WIT: For salt water the limiting mid ships marks would be 30 feet to 02 inches and 3/8th if I'm not mistaken.

Mr. Stettler: Thank you. Who sets these limitations that you mention, the limiting draft, mid ships draft, the GM margin? You mentioned there was a target or a limit on what you would accept. Who sets those values?

WIT: As far as the GM margin this was something that was determined by the experience of the company and the Captains as far as what the minimum GM margin would be to depart Jacksonville. And the mid ships marks would be determined by the load by Mr. Don Matthews and also consulted with the Captain as well.

Mr. Stettler: What – do you know document limits the draft with mid ships?

WIT: There is a salinity table that goes into versus – salt versus fresh what the maximum mid ships draft would be.

CAPT Neubauer: Sir, you mentioned at the company, that the company has some input on the GM margin, is that correct?

WIT: That is correct, yes.

CAPT Neubauer: Who at the company sets that policy?

WIT: This was something that was done through experience with the load out of the ships for many years and as I said it was something that was set between Don Matthews and the Captain of the vessel.

CAPT Neubauer: So when you say shore side company you mean Mr. Matthews?

WIT: That's correct, yes.

CAPT Neubauer: And did you ever see a number written down anywhere for GM margin that could not be exceeded? Or could not fall below?

WIT: No I don't believe I ever saw any number specifically.

CAPT Neubauer: And what was the number that was passed down historically that you understood?

WIT: 0.5 GM margin.

CAPT Neubauer: Were you ever aware of the vessel sailing below .5 feet?

WIT: I can't recall a specific instance where the vessel sailed, on my watch, below .5 GM margin.

CAPT Neubauer: Would you have ever let that occur?

WIT: Yes.

CAPT Neubauer: What would be the lowest GM margin that you would have allowed? And what would be the basis?

WIT: It wouldn't, first of all it wouldn't have been up to me, it would have been up to the Captain.

CAPT Neubauer: I withdraw the question. What would be the lowest GM margin that you would bring to the Captain with a recommendation to approve?

WIT: First of all it wouldn't have been through me. This is something that the Captain and Don Matthews would have discussed. So the Captain would have approved it. It wasn't my decision to make.

CAPT Neubauer: So the Captain and Don Matthews would have a prior conversation to the final load plan?

WIT: That is correct. On the morning of the departure day typically, or throughout the day the Captain and Don Matthews would discuss as far as the load out.

CAPT Neubauer: And you as the Chief Mate weren't a part of those discussions?

WIT: No I was not.

CAPT Neubauer: Thank you. Dr. Stettler.

Mr. Stettler: Thank you Mr. Torres. What, you mentioned values as low as half a foot, .5 feet for GM margin at departure from Jacksonville. What would happen to the GM margin during the voyage from, typically happen on the voyage from Jacksonville to San Juan?

WIT: The GM margin would decrease on its way to San Juan.

Mr. Stettler: Okay. And why would that be?

WIT: Due to fuel burn the center of gravity of the vessel would increase causing the GM margin to decrease.

Mr. Stettler: Do you have any recollection of, in your experience what the minimum GM margin for arrival in San Juan was, what the minimum you remember seeing?

WIT: The minimum I remember see possibly would be .1.

Mr. Stettler: Okay.

CAPT Neubauer: Can you qualify .1 feet?

WIT: That is correct, 0.1 feet.

CAPT Neubauer: And that is as you pulled into San Juan, is that correct?

WIT: That is, yes, at arrival. Arrival calculations we did prior to arrival in San Juan with a fuel burn.

CAPT Neubauer: Thank you. Dr. Stettler.

Mr. Stettler: Just to clarify that was with, so it was a calculation you did in advance, so you were assuming a particular burn rate I would assume with that?

WIT: That is correct, yes.

Mr. Stettler: In your experience on the El Faro, was a higher GM margin ever requested from anyone, either the Captain or anyone for particularly in the case perhaps where a heavy weather might be anticipated during the voyage?

WIT: On El Faro in my experience I can't recall a specific instance where we had heavy weather and I don't recall either whether a Captain or anyone requested a higher specific GM margin, no.

Mr. Stettler: To extend that question then to the El Yunque, because you have sailed aboard the El Yunque, are you aware of any situations on the El Yunque when that might have occurred?

WIT: No I am not aware.

CAPT Neubauer: Sir, did you have any – did you personally have any concerns about a .1 foot GM margin?

WIT: No I did not.

CAPT Neubauer: In previous vessels you've sailed on can you remember what the GM margin would be?

WIT: No I can't recall.

CAPT Neubauer: Thank you. Dr. Stettler.

Mr. Stettler: Mr. Torres you mentioned on this trim and stability summary sheet that you look at the trim, the value of the trim of the vessel. Could you comment if there are any, to your knowledge, are there any limitations on the value of that trim that you might be looking for?

WIT: Per company policy trim should not exceed 10 feet. As far as the trim of the vessel departing Jacksonville and when we would look at, typically the trim would fall

between 2 and 6 feet by the stern. And again this was something that the Captain and Don Matthews would have discussed as specific Captain's had preferences as far as what the trim would be.

Mr. Stettler: Are you aware of any trim limitation associated with bridge visibility with a certain container loading configuration?

WIT: I would have to refer to the trim and stability book for that.

Mr. Stettler: Does CargoMax have any limitation on the value of trim, to you knowledge?

WIT: Uh.

Mr. Stettler: In terms of its accuracy with large values in trim?

WIT: It's possible, but I'm not sure specifically.

Mr. Stettler: You mentioned bending moment is on this sheet. Could you talk a little bit more about that? What – how do you use that parameter and what does it represent?

WIT: The bending moment is basically a determination of how the stresses of the vessel are acting. And how cargo being loaded is causing the vessel to hog, in essence to have a downward curve on the ship's hull.

Mr. Stettler: In your experience how high, first of all let me perhaps you could highlight what is it you're looking at, you mentioned bending moment, what values are you looking at there to determine whether or not that's acceptable?

WIT: We would be looking at the percentage.

Mr. Stettler: Okay. What is that a percentage of?

WIT: That is a percentage of the – the allowable bending moment as it relates to the vessel.

Mr. Stettler: Okay. How high, just in your memory, have you seen that value, that percentage for departure from Jacksonville? Or just in general.

WIT: I don't believe I've seen the bending moment above a 65 percent in my time.

Mr. Stettler: Just looking at this Exhibit 88, which I mentioned was signed by the Chief Mate and the Master, is there anything that you would when you typically completed this process, loading the vessels, is there anything you might highlight on here that you would do differently?

CAPT Neubauer: Sir, I just want to clarify. Mr. Torres were you on board for this example? This was done on 2128 on 11 August 2015?

WIT: No, sir, I was not.

CAPT Neubauer: Thank you, sir. I just wanted to make sure.

Mr. Stettler: Thank you Captain.

CAPT Neubauer: Proceed with the question please.

Mr. Stettler: So just to follow up is there anything that you, when you typically loaded the vessel, and I also highlight on the next page of that same exhibit is a – is a copy or a photocopy of the deck log from that day. I'll give you minute to look at this. Is there anything that you would do differently as Chief Mate in the loading process?

WIT: Typically on my trim and stability summary page I would also add the port and starboard mid ships marks so they were visible. Other than that I don't believe that I had actually summarized what the trim was as far as the observed drafts. And I also did not make this notation on the bottom where he has the 03 inches SA.

Mr. Stettler: After the, CargoMax after you do your assessment and you, I assume you would also sign yours with the Captain, the Master, what would happen to this sheet? Where would it go?

WIT: Once the Captain had reviewed it and signed it a copy would be left with the bridge log book on the bridge, a copy would go to the Captain and the original would be filled in my office.

Mr. Stettler: Did that information ever get scanned and sent ashore?

WIT: No I don't believe it did.

Mr. Stettler: So are you aware of any other method of recording the observed drafts on the vessel? Did Mr. Matthews record the drafts to your knowledge?

WIT: I'm not aware.

Mr. Stettler: Other than the limitations that we've discussed here that are available to look on this trim and stability sheet, are you aware of any other limitations on the loading of the vessel that you as Chief Mate would want to look at prior to the vessel departing? And could you mention where – how you would have obtained that information?

WIT: Other than, as I said available dead weight, GM margin, our mid ships marks, our bending moment and sheer force, I can't think of anything else that comes to mind right now as far as anything else that I would look at.

Mr. Stettler: Is there anything within CargoMax that you would have to go into any of the menus or screens in CargoMax to assess, and I'll just throw out if there was something associated with container weights for example, what would you be looking for?

WIT: Okay. Yes as I would be doing the calculations and verifying the containers weights, I would also look at the stack weights in addition to the lashing margins for each particular bay.

Mr. Stettler: And where would you find that information?

WIT: Once you enter in CargoMax each particular bay and you see the container load out the stack weights and lashing margins would be represented in that part of the software.

Mr. Stettler: Okay. I'm almost completed Mr. Torres with my first line of questioning. Have you received any formal documented training in the use of the CargoMax stability and loading software?

WIT: To answer your question, yes. Part of my training with Fort Schuyler it being a 4 year program, not only are you trained in stability, but you're also trained on ship construction. And it's something that's not just one course, it's something that's done over a period of 4 years where you take ship construction, you take stability and you apply it, not only in class but also on the training over the summers. In addition to that when you're studying for licenses and taking license seminar you would also review stability and vessel construction. Also when upgrading your license you would review stability and when upgrading to Chief Mate Master there is a requirement where you have to take a 5 day course in trim and stability in order to prepare you for a license.

Mr. Stettler: Do you provide documentation of that just as an employee Chief Mate, ship's officer, do you provide documentation of that training to Tote Services in this case?

WIT: Yes, sir, when it's requested.

Mr. Stettler: Do you consider, it sounds like you've had training in both CargoMax and trim and stability in general, do you consider that you've had more training perhaps than a typical ship's officer on the El Faro and the El Yunque, or would you consider that to be about average?

WIT: I would say that every officer who is certified by the Coast Guard takes basically the same amount of training in order to get their license and in order to advance as well.

Mr. Stettler: Thank you. I have one last question Captain, and this is a follow up to a question you had asked. I would like to ask it in a slightly different way, and it is a little bit of a sensitive subject, but as Chief Mate you mentioned that you have worked with Mr. Rodriguez on occasion when he was filling in for Mr. Matthews. How would you as a deck officer, experienced deck officer, how would you assess his understanding of ship stability?

WIT: As far as I'm concerned Don Matthews and Ronald Rodriguez were both very experience in CargoMax and the stability of the vessel.

Mr. Stettler: Do you feel that Mr. Rodriguez understood the stability – the concepts associated with stability as opposed to the – I want to separate understanding how to run CargoMax versus understanding ship's stability?

WIT: I couldn't speak to that, sir.

Mr. Stettler: Thank you. No other questions on this topic.

CAPT Neubauer: Mr. Torres I would like to think back to the voyage where you went to San Juan with an ending GM margin of .1 feet.

WIT: Okay.

CAPT Neubauer: Was that a diverted route or a direct route, sir?

WIT: If I recall correctly it was a direct route.

CAPT Neubauer: Were there any delays at sea for weather or any other delays that you can remember?

WIT: No I couldn't remember.

CAPT Neubauer: I couldn't hear you, sir.

WIT: Sorry, no, I couldn't remember.

CAPT Neubauer: If there had been any delays at sea is it possible that the GM margin could have fallen into your required amount, sir?

WIT: No I don't believe so.

CAPT Neubauer: Had you burned more fuel at sea is it possible that the level of .1 could have dropped into the required amount?

WIT: If we had burned more fuel at sea we could possibly add ballast in order to satisfy the GM margin.

CAPT Neubauer: Is it in the ship's standing orders that if you get to your absolute required GM margin that that occurs, sir?

WIT: No, sir.

CAPT Neubauer: Is someone monitoring that at all times to make sure that you don't go to negative GM margin?

WIT: It's been the experience of this – of these ships for many many years that having a .5 GM margin or slightly below that leaving Jacksonville would leave you in San Juan, running at full speed with adequate GM margin arriving at the dock.

CAPT Neubauer: And that would be assuming a voyage that was not diverted, direct route?

WIT: That is correct, yes.

CAPT Neubauer: Do you ever remember ballasting at sea to compensate for a low GM margin?

WIT: No, sir.

CAPT Neubauer: Do you ever remember anybody talking about that, other than yourself, having that action occur, sir? On voyages you were not on?

WIT: No, sir.

CAPT Neubauer: At this time I'm going to pass the questioning to the NTSB. Mr. Roth-Roffy. Mr. Kucharski.

Mr. Kucharski: Good morning Mr. Torres.

WIT: Good morning.

Mr. Kucharski: Follow on questions with some of that, to get some clarification on some of the answers that you gave. Initially you mentioned that part of your duties was – were to including checking stows on the loadout in Jacksonville.

WIT: Yes, sir.

Mr. Kucharski: Could you explain what you mean by checking stows?

WIT: Part of my duties in Jacksonville would be to supervise cargo operations. So it was a routine of mine to walk about the vessel and make sure that every piece of cargo essentially would be stowed and lashed properly.

Mr. Kucharski: Okay, thank you. So lashing, the securing of the cargo?

WIT: That is correct, yes.

Mr. Kucharski: You also, I think Dr. Stettler mentioned any differences between ships, if you could point any of those out. You then went to the El Yunque and you were a Second Mate on there?

WIT: Correct.

Mr. Kucharski: Your cargo related duties in port, did you have cargo related duties in port there?

WIT: Yes, sir.

Mr. Kucharski: How did they differ or could you explain what your cargo related duties were on El Yunque in port?

WIT: As Second Mate on the El Yunque I stood a watch basically in port. And those duties in port basically entailed the actual operation of cargo where it would be supervising lashing and stowage in addition to opening and closing watertight doors, monitoring of the ramp, monitoring of lines and anything else related to the actual operation of the vessel for the day.

Mr. Kucharski: Great, thank you for that answer. You also mentioned that when you were Chief Officer on the El Morro, correction on the El Faro, you took drafts at the end of the load in Jacksonville, is that correct?

WIT: Yes, sir.

Mr. Kucharski: Could you tell us physically where on the vessel you took those drafts? Where on the vessel you took the observed drafts?

WIT: The drafts would be taken from the dock. The forward drafts were taken directly parallel to the stem of the bow and the after drafts, when they exceeded 30 feet were taken at the counter on the stern, directly parallel again.

Mr. Kucharski: When they exceeded 30 feet you took them on transom, you said?

WIT: On the counter.

Mr. Kucharski: I'm sorry on the counter?

WIT: On the counter, yes.

Mr. Kucharski: Would you explain where that is essentially?

WIT: If you're looking at the stern you have your transom which is your flat back part of the vessel. The counter would be, when you're standing on the dock, just forward of what the transom would be on the side.

Mr. Kucharski: Thank you. Dr. Stettler asked you if you had any specific training on the CargoMax program itself. Did you have specific training on the Cargo – use of the CargoMax program itself?

WIT: I don't recall specifically whether the loading software that I was trained on was CargoMax. The – I do recall that some of the training that I had on CargoMax was on the job training essentially. Basically shadowing the Chief Mates on the El Yunque and learning about CargoMax.

Mr. Kucharski: Captain Neubauer asked you about taking ballast or the possibility of taking ballast South bound to compensate the fuel burn and I believe you mentioned that you could take ballast if needed.

WIT: If needed, yes you could take ballast. But no, it never happened.

Mr. Kucharski: Could you tell us what tanks you had available to put ballast in?

WIT: Typically the tanks that we use for ballast on the El Faro would be 1A centerline and 1B starboard, 1B starboard.

Mr. Kucharski: And just do you know if the vertical center of gravities of those tanks how they differ from the fuel burn tanks?

WIT: Uh no.

Mr. Kucharski: You had mentioned I think when asked about the list, a difference of what you saw in CargoMax, the computed and then the observed and that there was generally about a 2 degree starboard list after the load out in Jacksonville.

WIT: That is correct, yes.

Mr. Kucharski: And I believe you mentioned you discussed that with Axelsson?

WIT: Yes we did discuss that there was a difference in the list from the observed to the computed.

Mr. Kucharski: Did you ever discuss that difference with anyone at Tote Services?

WIT: Uh no, I don't believe I did.

Mr. Kucharski: To compensate for list in tankage, you know in the tanks on the ship, which tanks or tank did you usually use?

WIT: We had, what we called the ramp tanks, which were wing tanks that we used to compensate list for.

Mr. Kucharski: Was there a maximum amount of list you could compensate before using those tanks?

WIT: I believe the maximum amount of list, depending on how cargo was loaded and whether the ship was either stiff or tender, was approximately 2 degrees.

Mr. Kucharski: Do you ever remember sailing with all the water over to one side to compensate for list?

WIT: I couldn't recall specific instances, no.

Mr. Kucharski: Earlier Dr. Stettler asked you questions about taking salinity readings for the vessel on departure.

WIT: Yes, sir.

Mr. Kucharski: And could you describe again, you said you use a bucket that you – into the water or anything like that, or how did you actually do it?

WIT: Correct, yes. We had a 5 gallon bucket with a line attached to it that we would lower into the water from the dock side on the starboard side of the vessel or we could also do it on the port side after the house. That bucket would be lowered and filled up, raised to the deck and then we'd place the hydrometer in the bucket, let it stabilize and then read the specific gravity.

Mr. Kucharski: So that salinity reading is essentially close to the – the sample that you took was essentially close to the surface?

WIT: Yes, sir.

Mr. Kucharski: I believe you mentioned about the – about 8500 barrel parameter for leaving out of Jacksonville, and I believe you also mentioned about 25 percent, could you elaborate on that please?

WIT: Yes. The OMV states that the vessel should have a 25 percent extra fuel in case of, for example heavy weather or diversion or anything of that sort. And the 8500 was the value for to complete the voyage and adding the 25 percent as well.

Mr. Kucharski: Do you know if that 8500 barrels would cover a diversion down the Yucatan Channel?

WIT: No I do not.

Mr. Kucharski: Were you aware of any amount of fuel or bunkers on board that vessel that were un-pumpable by the use of a fixed piping system?

WIT: No I'm not aware.

Mr. Kucharski: Please look back at Exhibit 88 and two questions on that. This is the, the first part, page 1 please. Which I believe is a printout from CargoMax.

WIT: Yes, sir.

Mr. Kucharski: There are two questions I have on that. Down under stability calculations below GMT, GM margin, it says required GM curve, auto wind heel.

WIT: Yes, sir.

Mr. Kucharski: Have you seen that before?

WIT: Yes I have.

Mr. Kucharski: Is that, to your experience do you always see that on the page like that?

WIT: Yes, that's correct.

Mr. Kucharski: Do you know what that indicates?

WIT: Yes, it indicates based on the trim and stability book the GM curve based on the wind heel of the vessel depending on the container stacks.

Mr. Kucharski: Do you know what that value, what the criteria was used for that? What kind of wind?

WIT: No I do not.

Mr. Kucharski: You also mentioned available dead weight on this particular form that – on this that we're looking at from this Exhibit 88.

WIT: Yes.

Mr. Kucharski: Where is that number on this form?

WIT: It isn't.

Mr. Kucharski: On leaving Jacksonville or any port actually let me qualify that, any port, when you look at the marks have you heard the phrase, do you know the Plimsoll mark is?

WIT: Yes, sir.

Mr. Kucharski: Is that the load line mark that you would comply to, to make sure that you don't sail past the marks?

WIT: That is correct, sir. The Plimsoll mark, the center mark is the summer mark and that's what we go by for the mid ships mark, that's correct.

Mr. Kucharski: Okay. Is that seasonal, the summer mark?

WIT: The marks are seasonal, yes. But for this particular run it's the summer mark that we went by.

Mr. Kucharski: Those are all the questions I have on this line, thank you.

CAPT Neubauer: At this time we will go to the parties in interest. Tote?

Tote Inc: No questions, sir.

CAPT Neubauer: ABS?

ABS: No questions, sir.

CAPT Neubauer: Mrs. Davidson?

Ms. Davidson: Chief Mate Torres, Mr. Torres, can you turn to page – Exhibit 59?

Counsel: Books getting a little worn.

WIT: Go ahead.

Ms. Davidson: What's the GM margin right there?

WIT: 0.640 feet.

Ms. Davidson: And the company had a policy of a .50, correct?

WIT: I don't believe there was a policy. As I said it was something that would have been discussed between the Captain and Don Matthews.

Ms. Davidson: Thank you. No further questions.

CAPT Neubauer: Mr. Bennett I want to point out that that was printed at 1148 on 1 October, 2015 and it was a preliminary load plan.

Ms. Davidson: Thank you Captain. Mr. Torres could you turn to Exhibit 58? Can you read the GM margin there?

WIT: 0.800 feet.

Ms. Davidson: And when was that printed out?

WIT: This would have been September 29th, 2015.

Ms. Davidson: And is it your understanding that Exhibit 59 was the corrected version of 58?

CAPT Neubauer: Mr. Torres can you confirm? Were you on this voyage for this load plan?

WIT: No I was not.

Ms. Davidson: No further questions.

CAPT Neubauer: The reason I mention that is because this load plan changed while as sea also. There's a 1 October load plan that Mr. Torres probably would not be aware of.

Ms. Davidson: And the reason why I raised the issue is because we keep pointing to an exhibit that's dated February and deals with a GM margin that had nothing to do with the October 1 voyage, so I just wanted to say that for the record.

CAPT Neubauer: Yes, sir. Mr. Bennett I'm just trying to get Tote's normal operating policies. That was not related to the 1 October voyage when we were looking at the load plan.

Ms. Davidson: Thank you Captain.

CAPT Neubauer: Mr. Torres would you like to take a break?

WIT: Nope, I'm good.

CAPT Neubauer: At this time we'll go into the next line of questioning. Mr. Kucharski.

Mr. Kucharski: Actually I have some more questions related to draft marks, I didn't realize we were finished with stability, so. Was there any correction made to the visual draft marks you take – you took before you entered it into load max, uh CargoMax?

WIT: No there was no correction.

Mr. Kucharski: A little bit of change off of stability and then into lashings. Captain Loftfield's testimony he mentioned that you would have a discussion with him sailing on the El Yunque right around the time the El Faro was lost. Can you relay any of that discussion to us?

WIT: Captain Loftfield signed on I believe the Friday, so if the El Faro was believed to be lost October 1st, which would have been a Thursday, Captain Loftfield signed on to the El Yunque October 2nd in Jacksonville. What was your question again, I'm sorry?

Mr. Kucharski: You had, according to Captain Loftfield you had some concerns about the route.

WIT: Okay. Once Captain Loftfield signed on and Kevin Stith, Captain Kevin Stith was about to sign off, Captain Stith and I had conferred and we had agreed that the Old Bahama Channel would be the route to take to proceed down to San Juan after leaving Jacksonville considering that Hurricane Joaquin was pretty much stationary right around the believed position of the El Faro. Once Captain Loftfield signed onto the vessel we briefly met with in his office and he agreed that Old Bahama Channel would be the route to take. Prior to departure Captain Loftfield approached me and mentioned that he was considering going through Northwest Providence Channel if conditions were favorable. At the time I didn't say anything and then later I believe after we departed Jacksonville or prior to getting off the dock I was in the Chief Mates office where Captain Loftfield walked in and after reviewing the BVS and the weather throughout the day I advised Captain Loftfield that I thought it would be better that we continue through the Old Bahama Channel.

Mr. Kucharski: And did the vessel use Old Bahama Channel?

WIT: No we did not. Captain Loftfield after we spoke mentioned that considering it would take us 12 hours to get to the point where we would either turn for Northwest Providence or continue through Old Bahama Channel we would monitor the weather and determine then if it would be favorable to go through Northwest Providence or continue through Old Bahama Channel. Once we sailed from Jacksonville my being on the 12 to 4 watch I monitored the weather throughout the night and I could see that Hurricane Joaquin had started its track North bound. And so Captain Loftfield then made the determination that it was safe for us to go through Northwest Providence and that's where we proceeded.

CAPT Neubauer: Mr. Kucharski I have a follow up question. Mr. Torres that was on the El Yunque, is that correct?

WIT: Yes, sir.

CAPT Neubauer: And you were, you mentioned that you were closely monitoring the weather during the watch on the bridge.

WIT: Yes, sir.

CAPT Neubauer: Was it required for Captain Loftfield to deliver you the email packet with the weather information or were you able to obtain that directly on the bridge?

WIT: I am not sure whether or not the email came in on its own or if the Captain had to physically forward it up to the bridge.

CAPT Neubauer: Remembering back to the El Faro, do you remember how the weather information was received on that vessel, sir?

WIT: Same answer, sir. I can't recall specifically whether it was sent up by the Captain manually or it came in to the bridge email directly.

CAPT Neubauer: Do you remember what watches you were standing on the El Faro?

WIT: It would have been the 4 to 8 watch in the morning and the 16 to 20 watch in the evening.

CAPT Neubauer: Thinking back to the 4 to 8 watch, was it standard procedure that you would receive the weather in the morning later in the watch? And that would possibly coincide with the Master?

WIT: It's possible, but I can't recall specific.

CAPT Neubauer: Can you recall specifically whether you got the weather later in the watch or maybe at the beginning around the 0400?

WIT: I can't recall, sir.

CAPT Neubauer: Thank you, sir. Mr. Kucharski.

Mr. Kucharski: Thank you Captain. Two last questions on stability. Did you ever use any other method to calculate stability on the vessel besides what was in the trim and stability book or CargoMax?

WIT: No, sir. There was – I did not use any other method to calculate stability.

Mr. Kucharski: And the last question, did you participate in or were you aware of any internal audits made of the stability related functions, duties on board the vessel?

WIT: Yes I believe I was.

Mr. Kucharski: Could you elaborate on that please?

WIT: When we took the El Faro out of North Florida shipyard approximately May 2014, about a week after we had an audit. And during that audit the subject came up for the test cases to be done on the CargoMax software. Once Captain Axelsson approached me about it I went through the CargoMax software manual and proceeded to do the test cases on CargoMax as part of the audit request.

Mr. Kucharski: And that was an internal audit?

WIT: I believe it was an external audit with ABS.

Mr. Kucharski: So are you aware of any internal audits that were made in service, you know after the vessel left North Florida shipyards?

WIT: I can't recall specifically.

CAPT Neubauer: Do you remember how the program performed, sir, during that audit?

WIT: Yes, sir. The test cases versus CargoMax were spot on. Everything that the CargoMax test cases showed once I inputted the information, everything matched.

CAPT Neubauer: Thank you.

Mr. Kucharski: Captain I have fairly long line of questions now.

CAPT Neubauer: The hearing will now – the hearing will now recess and reconvene at 1030.

The hearing recessed at 1020, 25 February 2016

The hearing was called to order at 1037, 25 February 2016

CAPT Neubauer: The hearing is now back in session. I want to make one clarification for the record regarding exhibits that came up during the last session. We were talking about the CargoMax printouts for the storm voyage of the El Faro and there are 3 separate CargoMax printouts in the exhibits. Exhibit 57 is a preliminary plan that was delivered earlier in the day on the 29th of September, 2015. Exhibit 58 is the CargoMax printout that was delivered by shore side personnel to the El Faro prior to departure. And Exhibit 59 is the CargoMax printout corrected that was calculated while the El Faro was at sea on October 1st, 2015. Did I characterize that right? Do the parties in interest have any objections?

Tote Inc: No, sir, that's correct. We would also take a moment to point out that we have provided with you – to you numerous records for the past year. And if you review those records as we have you will find that the, I know we've been focusing on here the Exhibit 88 which has a required GM margin less than .5, but if you look at the vast majority of the records almost all of the records that you have for the last year you'll see that the vessel almost always would sail with at least .5 in margin, .5 feet of GM margin.

CAPT Neubauer: Noted Mr. Reid and I will confirm that the Coast Guard looked for the scenario that was below. And your statement is acknowledged.

Tote Inc: Yes, sir. We would be happy to put on the record an affidavit of some kind to sort of lay out a day by day basis of what those numbers were.

CAPT Neubauer: Sir, I don't think you need to. I agree with your assessment.

Tote Inc: Thank you, sir.

CAPT Neubauer: Mr. Torres do you have a clarification to make from earlier testimony?

WIT: Yes. I would like to point out a question that Dr. Stettler asked about the maximum displacement and how we verified or calculated that. I believe I mentioned that we would look at the salinity table, the immersion table, I would also like to point out that we – that I also looked at the hydrostatic table that came out of the trim and stability book to look at what the displacement was knowing our fresh water allowance. In addition to that I would like to also point out regarding the fuel carried on board. That typically we burned about 1000 barrels of fuel on a 24 hour period running at max speed from Jacksonville to San Juan. If you estimate that for the South bound and North bound voyage you would look at approximately 4000 barrels of fuel burned. And going back to my statement of the 8500 barrels we not only had 25 percent extra fuel on board, we had 50 percent.

CAPT Neubauer: Okay, thank you, sir. So extra capacity from what you had calculated before?

WIT: That is correct.

CAPT Neubauer: Are there any other clarifications, sir?

WIT: No, not at this time.

CAPT Neubauer: Mr. Kucharski are you ready to proceed?

Mr. Kucharski: Yes, sir. Mr. Torres when you were Chief Officer, Chief Mate on the El Faro did you have turnover notes that you gave to the person that was relieving you and did the person that was being relieved when you joined the ship, did they have turnover notes also for you?

WIT: Yes, sir.

Mr. Kucharski: Do you have copies of those notes?

WIT: I don't believe I have copies. My turnover notes would have been, my personal notes would have probably been saved on my personal computer.

Mr. Kucharski: Did you hand – give those turnover notes to anyone else besides your relief? Copies of those.

WIT: Yes, I believe the Captain did review our turnover notes.

Mr. Kucharski: Were any of those sent ashore?

WIT: Yes I believe some of them are.

Tote Inc: Mr. Kucharski, just a moment. I know we've – I received an email from Commander Bray asking for the turnover notes. And last evening when we met with Mr. Torres we found out that he did have some hand over notes on his personal computer device and we're getting those ready to submit those to the board.

CAPT Neubauer: Thank you Mr. Reid. Mr. Kucharski.

Mr. Kucharski: Just to go back over I believe what was said earlier, you served as Chief Mate on El Faro up until sometime in July was that?

WIT: Yes, sir.

Mr. Kucharski: And then you went on El Yunque after that?

WIT: Yes, sir.

Mr. Kucharski: As Second Mate. About what time did you go on El Yunque?

WIT: I signed off the El Faro July 28th. It would have been the 4 to 5 weeks after that. So possibly the beginning of September.

Mr. Kucharski: And as part of your duties, cargo duties on both ships you walked the decks at the cargo load out, I understand the duties may have differed a little bit, but you walked the decks on the ships, the cargo decks?

WIT: Yes, sir.

Mr. Kucharski: At sea while you were on El Yunque as Second Officer, did you have any cargo duties at sea?

WIT: At the request of the Chief Mate I could assist him in – assist him in verifying lashing throughout the vessel while making rounds.

Mr. Kucharski: You said you could. Did you actually do that?

WIT: Yes I believe I did.

Mr. Kucharski: Did you ever have to adjust any of the lashings, tighten any of the lashings, change any of the leads while you were making your rounds as Second Officer on the El Yunque?

WIT: This particular voyage it's possible yes.

Mr. Kucharski: Back to El Faro while you were Chief Officer during the cargo load out, did you have to point out any change in lashings that you would like or securing of the cargo?

WIT: To who?

Mr. Kucharski: To anyone. Did you point it out to anyone that you ----

WIT: Yes I did.

Mr. Kucharski: Could you tell us to who you pointed that out to?

WIT: If during my rounds during a cargo load out I specifically wanted a lead to chain on – to change on a specific chain or if I wanted to add more chains to a specific trailer on the second deck I would ask either the header for the longshoreman or longshoreman himself.

Mr. Kucharski: And who would that have been, I'm sorry, you said the longshoreman himself?

WIT: Yes.

Mr. Kucharski: Did you ever go to Mr. Callaway for any problems or changes?

WIT: Mr. Callaway, the only person that I know that I could contact aside from speaking from the people directly on the vessel was somebody that we referred to as Taco. I don't know his full name.

Mr. Kucharski: Yes, I believe that was his nickname.

CAPT Neubauer: I didn't catch the nickname. Can you say it again, sir?

WIT: Taco.

CAPT Neubauer: Thank you.

Mr. Kucharski: So you're sort of in a unique position. You've been both vessels fairly, I say both vessels, the El Faro prior to the accident and El Yunque shortly after the accident. In your walks on the cargo decks, can you tell us how the ships compared in overall condition for the cargo related gear, ramp winches, ramp locks, buttons, D rings, both the fixed gear and the portable gear for securing the cargo?

WIT: I believe both ships were similar in their configuration with cargo and their lashing gear. And I also know and I'm aware that there is a preventative maintenance program where if anything needs to be addressed or tagged out it would be on both vessels.

Mr. Kucharski: Could you look please at Exhibit 109 page 5? I think we can pull that up on the screen. And just as a clarification I believe you stated that the El Yunque and the El Faro, El Faro before while you were Chief Officer up until July sometime and then the El Yunque where you were Second Officer, the arrangement was the same. How about the general overall condition of those items which I mentioned?

WIT: I believe that the general condition of those items that you mentioned were adequate and were similar on both vessels.

Mr. Kucharski: Can you explain to us what we're looking at on page 5 of the exhibit?

WIT: This is what we typically would call a button where the roloc box on the trailer on the forward end of the trailer would secure it to the deck. Where essentially a pin goes into this button securing the forward end of the trailer.

CAPT Neubauer: Can you describe the exhibit we're referring to, sir? Or do you know what – where this picture is included in? What document?

WIT: I'm sorry, can you explain that further?

CAPT Neubauer: Do you know what – can you explain this exhibit, what we're looking at?

WIT: I was just talking about the button.

CAPT Neubauer: I'm sorry, I mean the overall document, sir.

WIT: Exhibit 109?

CAPT Neubauer: Yes. I just wanted to explain the document that includes this picture to give some explanation to what we're looking at. What is this contained in?

WIT: This would be contained in the cargo securing manual.

CAPT Neubauer: Yes, sir. That's what I was looking for.

WIT: Okay.

Mr. Kucharski: I'm sorry a clarification on that. This is cargo securing manual. This is actually is – the picture itself was taken on 12/10 and it was the actual button on the El Yunque, a button on the El Yunque.

CAPT Neubauer: Okay, thank you. I wasn't clear on that. Do you know who took this photograph, sir?

Mr. Kucharski: Yes I do. Commander Denning took the picture.

CAPT Neubauer: Okay, thank you.

Mr. Kucharski: So Mr. Torres this is a button arrangement that you're looking at, this is what you said it's a button?

WIT: Yes, sir.

Mr. Kucharski: Okay. And this picture was taken on El Yunque by Commander Denning. Can you tell us about the condition, compare the condition on the El Faro, would they be similar to this?

WIT: Looking at this picture, sir, this appears to be surface rust. I don't see anything wrong with the condition of this button.

Mr. Kucharski: Okay, thank you on that. I will ask the question again. But the general condition though, can you tell us this would be similar to the overall general condition?

Counsel: I just need to object, if we're going to take a look at one button and compare the entire general condition of the vessel I don't think it's a fair comparison. And it kind of seems like that's where we're going with this. I mean if we're going to compare button to button there's a whole bunch of buttons on there.

CAPT Neubauer: Okay, sir. Mr. Torres is this picture in your opinion a representation of the general quality of the buttons on the El Yunque? Can you speak for that, sir?

WIT: As a general quality to the El Yunque and as I stated this button looks more than adequate to me as far as securing a roloc box or a trailer, this being surface rust. Yes, this would basically look like any other button on the El Yunque.

CAPT Neubauer: And thinking about the El Faro would you say the same types of conditions or better or worse? If you can make that association, sir, or comparison.

WIT: In order to give you a definitive answer I would like to – I would have to see or look at the specific buttons on the El Faro.

CAPT Neubauer: Yes, sir. So I understand at this time no comparison?

WIT: Correct.

Mr. Kucharski: Exhibit 40 is the cargo securing manual. And it's just a general question right now, have you seen the cargo securing manual for the – that type of exhibit on El Faro?

WIT: Okay, sir.

Mr. Kucharski: Have you seen a cargo securing manual for the El Faro?

WIT: Yes I have.

Mr. Kucharski: Can you tell us if the practices and procedures in the cargo securing manual were adhered to on the El Faro?

WIT: Yes, sir.

Mr. Kucharski: Did the practice differ at all?

WIT: I can't recall a specific practice that would differ from what the cargo securing manual states.

Mr. Kucharski: Can you tell us if the El Yunque differed in any way as far as the cargo was secured? Between what was done on the El Faro.

WIT: I am not aware of any specific differences between the cargo securing on the El Yunque and the cargo securing on the El Faro.

Mr. Kucharski: Did you make any specific checks of the actual securing arrangements aboard the El Faro while you were Mate to see if they complied to the requirements, physical checks? Did you measure any angles or distances on the leads or anything like that?

WIT: Any physical specific checks other than visual, no.

Mr. Kucharski: Now specifically on Exhibit 40 at page 17.

WIT: I'm almost there, sorry.

Mr. Kucharski: At section 5.3.3 where it talks about inspection requirements and ship's structure securing devices. Can you take a second to review those two paragraphs please? And could you tell us in, it's in paragraph – first paragraph where it starts off fixed cargo securing devices, can you tell us how you routinely inspected those? Or if you did or someone in the ship's force.

WIT: The paragraph here states that at least once every other voyage, fixed cargo securing devices should be routinely inspected for damage such as cracking or deformation. I would have to say that this was done at every voyage during a load out.

If the longshoreman noticed anything whether it be a button or a D ring they would notify us either the Mate on watch or myself and that particular button, D ring for example would be tagged out and not used until it was repaired.

Mr. Kucharski: Now I'll have some specific questions on those in a little bit. Just general questions, then in the second paragraph it says in way of fixed cargo securing devices, ship's structure that's visible shall be inspected. Could you explain, every six months, can you explain what your inspection process was for that?

WIT: Basically the same answer, sir. As we loaded the vessel or discharged the vessel the Mate on watch or the longshoreman if something stood out or something was mentioned to us we would have taken the proper steps to address them.

Mr. Kucharski: Now following along on page 18 there was as log for maintenance of cargo securing equipment, please look at that. Have you seen this form before?

WIT: On the El Faro, first of all yes I have seen this form. Go ahead.

Mr. Kucharski: Did you utilize this form on the El Faro?

WIT: On the El Faro no, we did not use this specific form. As part of our monthly greasing the Boatswain would – he'd have a form that I print out once a month where he would go about the ship and maintain cargo securing equipment.

Mr. Kucharski: And then the Boatswain, did he turn that form back into you?

WIT: That's correct.

Mr. Kucharski: Was that form sent anywhere after it went to you, copy sent to shore or anything like that/

WIT: No, that form stayed on the ship.

Mr. Kucharski: Was it kept like in a computerized version or was it all in hard copy?

WIT: Yes it was kept in a computerized version.

Mr. Kucharski: Would you have any copies of those that we could look at?

WIT: Yes.

Mr. Kucharski: On El Yunque did they use a form to capture that, the maintenance?

WIT: I couldn't answer that question, sir, due to the fact that I don't sail as Chief Mate on the El Yunque, so I'm not aware of how they maintained or if they use this form or a ship specific form.

Mr. Kucharski: Please take a look at Exhibit 42. I would like to point out that this in previous testimony it's been brought up that this is the, although it's titled CCI Tote – Tote lashing manual, it captures I believe the El Yunque and El Morro. Was there a book that you saw on El Faro for the, called the lashing manual?

WIT: I don't recall there being a specific lashing manual from the cargo securing manual on the El Faro.

Mr. Kucharski: Please take a look at the pictures at the end of this manual on pages 127, 128, and 130.

WIT: Go ahead.

Mr. Kucharski: And again this was a part of the – for the El Yunque and El Morro. Could you tell us if these pictures are fairly accurate depiction of what would also be done on the way they were lashed on the El Faro?

WIT: Yes, sir, that's correct.

Mr. Kucharski: Do you know if there were any changes made to the El Yunque securing of cargo after the El Faro incident?

WIT: No, sir, I'm not aware of any changes.

Mr. Kucharski: Exhibit 109 again please. And there will be a number of pictures we will look at in this – in that exhibit please.

WIT: Go ahead.

Mr. Kucharski: Please look at picture number 1. And would you explain briefly what we're looking at there? And I would also like to point out Captain, and these were taken, all these pictures were taken on El Yunque on or about December 10th.

WIT: Okay. So what we're looking at here is a picture of the back of the trailer and the barrel binder with a chain securing the trailer to the deck using a D ring.

Mr. Kucharski: Would you say that this same securing method was used on El Faro?

WIT: Yes, sir.

Mr. Kucharski: Please look at picture number 3. And briefly can you explain what we're looking at there?

WIT: What we're looking at here is a – the picture of a front of a trailer and the roloc box would be the orange box sitting underneath the trailer that would secure to the button we looked at before. And you have again chains securing the trailer down to the deck in addition to chains securing the roloc box to the deck as well.

Mr. Kucharski: And would this be a typical type of securing method that would be used on El Faro also?

WIT: Yes, sir.

Mr. Kucharski: I don't want to get you jumping back into another exhibit at the time, but I've seen the word deck socket used in the cargo securing manual. Would the button also be called the deck socket?

WIT: I would have to review the manual, sir.

Mr. Kucharski: Well we'll go to that then specifically. Were the roloc boxes part of the securing arrangements for a load of cargo?

WIT: On the ro-ro decks, yes, sir.

Mr. Kucharski: How were the roloc's inspected, under the cargo securing manual or by the securing manual?

WIT: I would have to review the manual, sir.

Mr. Kucharski: Okay. When we take a break then we'll pull that up and we can look at it. Please look at – let's, still with Exhibit 40, but I – actually let's look at Exhibit 40, page 49. And what I'd just like to make sure that we're talking about the – yeah, Exhibit 40 page 49. Where it specifically talks about the maintenance procedures on 48 and 49. Have you ever seen this before?

WIT: Yes, sir.

Mr. Kucharski: So were those maintenance procedures performed on the roloc boxes?

WIT: If the maintenance procedures were performed on the roloc boxes that would have done shore side, not on the vessel.

Mr. Kucharski: Okay, thank you. On page 49 under the figure 15, where it says roloc boxes, there's a, not the bolded caption, but underneath it, it say roloc boxes are secured to the deck at dedicated sockets, do you see that?

WIT: Yes, sir.

Mr. Kucharski: Okay. Would the dedicated sockets be the buttons?

WIT: Yes, sir, that's correct.

Mr. Kucharski: Okay. Just wanted to establish so we know that we're talking about buttons and sockets. On page 49 that same paragraph, roloc boxes are secured to the deck at dedicated sockets. It says the locking spud on the boxes inserted into the hole and rotated to lock in place. Is that correct?

WIT: Yes, sir.

Mr. Kucharski: Sorry I'm going to need you to jump back now to Exhibit 109. And picture number – picture 4. In your opinion can that spud be turned clockwise 90 degrees, or twisted?

WIT: I can't make – I can't make that determination looking at the picture, sir.

Mr. Kucharski: Can you tell us if the – this locking spud was turned 90 degrees on – could be turned on the buttons on the El Faro?

CAPT Neubauer: I just want to clarify, the picture we're looking at is the El Yunque, is that correct?

Mr. Kucharski: Yes, yes El Yunque page 4.

CAPT Neubauer: Okay.

WIT: And going back to your question could that spud be turned 90 degrees on El Faro, was that your question?

Mr. Kucharski: Yes, sir.

CAPT Neubauer: I think a good first question is the condition of the equipment on the El Faro similar to what you're looking at there, sir, to your knowledge?

WIT: I believe we went over this before.

CAPT Neubauer: Okay. So your opinion is it is similar on the El Faro or you cannot make determination?

WIT: What I estimated before was that I couldn't make that determination.

CAPT Neubauer: In your estimation could that specific piece of equipment be turned on the El Yunque?

WIT: Looking at this picture, yes. Using this piece of equipment the spud would be turned 90 degrees, yes.

Mr. Kucharski: Were on the El Faro were all of these spuds turn 90 degrees, rotated 90 degrees?

WIT: Yes, sir.

Mr. Kucharski: Please look at, same Exhibit 109, page 6. Could you give us a brief description of what we're looking at there?

WIT: Okay, sir. Here you would be looking at the front of the trailer and two chains securing the trailer on the front end to the deck at a 45 degree angle. In addition to the roloc box also appearing to be secured to the deck.

Mr. Kucharski: Would this be, this is again El Yunque, would this be similar to what you would see on El Faro?

WIT: Yes, sir.

Mr. Kucharski: Please look at picture 7.

WIT: Go ahead.

Mr. Kucharski: Could you tell us what we're looking at there? This again was on El Yunque.

WIT: What we're looking at here is a beam that sits on top of the bays on the main deck on the container deck. And what you're looking at here is the socket where the

manual twist locks would lock into in addition to the D rings where the lashing binders and lashing rods would attached to, to secure the container.

Mr. Kucharski: For the record I took this picture on the 6th of October. This was on El Yunque. There were repairs going on – ongoing at that time you were on board the ship with the El Yunque at that time?

WIT: That is correct, yes, sir.

Mr. Kucharski: What were there repairs being made to?

WIT: I believe it was general maintenance on bay 16 on the forward end. What you're looking at here is basically these areas were primed, or chipped, primed and painted. Where you look at here the forward supports to the beam on Bay 16.

Mr. Kucharski: So I would have to – this was on, I took this, it was on the after deck, main deck of the El Yunque. There was welding and burning, they were welding wires down here. There was welding and burning going on, do you know what that was related to?

WIT: No I can't recall specifically.

Mr. Kucharski: When you were on El Faro was there any welding and burning done on the fixed, this is part of container securing system?

WIT: Correct.

Mr. Kucharski: Correct? Was there welding and burning done on that particular system on board the El Faro when you were Chief Mate on there?

WIT: I couldn't recall specifically, no.

Mr. Kucharski: Please look at Exhibit 19 now. The exhibit is entitled Torres to Matthews lashing gear, second deck issue.

WIT: Go ahead.

Mr. Kucharski: Have you – did you send that email?

WIT: Yes, sir, that's correct.

Tote Inc: Which exhibit are we talking about, sir?

CAPT Neubauer: Exhibit 19.

Mr. Kucharski: 19.

CAPT Neubauer: It should be a one page email, does everyone have that?

Tote Inc: Our exhibit 19 is a CargoMax printout.

CAPT Neubauer: Okay. At this time we will take a 5 minute recess and reconvene at 1121.

The hearing recessed at 1116, 25 February 2016

The hearing was called to order at 1125, 25 February 2016

CAPT Neubauer: The hearing is now back in session. Mr. Kucharski.

Mr. Kucharski: Thank you Captain. Mr. Torres, have you had time to exhibit – to review exhibit 19?

WIT: Yes, sir. And before we continue if I could I would like to make a clarification about something we spoke about before?

CAPT Neubauer: Yes, sir.

WIT: Regarding one of the pictures looking at the front of the trailer, I forget which exhibit we were speaking about where I talked about the two chains at a 45 degree angle and you asked me if that was indicative or the same – or if it was the same on the El Faro, I have to say that it would vary depending on the stow location. So whether or

not the trailer was either on a wing or not there would be more chains than the two that we saw in the exhibit.

CAPT Neubauer: So sir, can you clarify where that type of arrangement would be located?

WIT: Typically on the second deck port and starboard. The two trailers that are on the wings or the extremity of the vessel on the second deck. There would be two chains securing the trailer to the deck in addition to two chains securing the roloc box to the deck.

CAPT Neubauer: Thank you.

Mr. Kucharski: Just a point of – can we look at that picture again please?

WIT: Sure.

Mr. Kucharski: 109 and its number 6.

WIT: Exhibit 109 and page 6 you mentioned?

Mr. Kucharski: Yeah, yes, Exhibit 109 page 6 please, yeah. Please look at it where the hooks are secured in there and tell me what deck that's on? You mentioned the second deck earlier, please take a look at that and tell me if that's second deck. The hooks rolling into the deck.

WIT: Yes, sir.

Mr. Kucharski: Is that on the second deck?

WIT: No, sir, that would not be on the second deck.

Mr. Kucharski: Could you tell us where that would be?

WIT: It would be on the third deck, sir.

Mr. Kucharski: Third deck, okay. And where it's hooked in to those, called the clover leafs.

WIT: Yes, sir.

Mr. Kucharski: Thank you, okay. Back to Exhibit, sorry just needed to clear that up.

WIT: Sure.

Mr. Kucharski: Back to Exhibit 19 again.

WIT: Yes, sir.

Mr. Kucharski: Have you seen this email before?

WIT: Yes, sir, I typed it.

Mr. Kucharski: Great. And it mentions a lashing inventory of 4/25.

WIT: Yes, sir.

Mr. Kucharski: Did you take – you were on the El Faro into July sometime, did you take any other inventories between April and July?

WIT: Typically the lashing inventory would be completed by the Chief Mate at the end of his tour. If this was done around 4/25 it was because I was signing – it was about – it was because I was about to sign off the vessel.

Mr. Kucharski: And when you signed off the vessel in July did you also complete one of these?

WIT: Yes I believe I did.

Mr. Kucharski: And did the – are these inventories, who are they sent to? The copy?

WIT: These would have been sent to Don Matthews.

Mr. Kucharski: The second sentence in the body of this email says if available please supply collars for D rings. Could you – we would like to make some repairs on the

second deck. Could you explain that to us, the repairs that you were going to - that effect?

WIT: Yes, sir. As part of our preventative maintenance on cargo securing equipment it was brought to my attention by either the longshoreman or the Mates on watch that there were a number of D rings that could use repair on the second deck. And those D rings were tagged out with spray paint. The longshoreman were notified and I was requesting supplies from Mr. Matthews so that we could make those repairs.

Mr. Kucharski: When you say we would it be the deck department that made the repairs?

WIT: The, I mean we as a crew, but the engine department would make the repairs.

Mr. Kucharski: And this specifically mentions 15 collars for D rings, were there also repairs made to buttons at any time while you were on there?

WIT: I couldn't recall specifically.

Mr. Kucharski: Was anyone shore side during your time as Chief Mate on there involved in any repairs to the fixed securing devices on the vessel?

WIT: No I don't believe so.

Mr. Kucharski: Shore side, riding crews or anything like that?

WIT: I don't believe that we had anybody shore side on my time on the vessel riding to repair any cargo securing equipment, no.

Mr. Kucharski: And just so I'm clear on, make sure I understood on your previous answer, you're not aware of any button repairs that were made or replaced while your whole tenure as Chief Mate on the El Faro?

WIT: I don't recall a specific instance where I requested buttons to be repaired on my tenure as Chief Mate on the vessel.

Mr. Kucharski: Have you ever seen a plan or diagram of El Faro's fixed securing devices?

WIT: No I don't believe I have.

Mr. Kucharski: Did the fixed securing devices require regular maintenance?

WIT: Yes you could say it required maintenance, yes.

Mr. Kucharski: Could you explain what that entailed?

WIT: For D rings, certain D rings, for example those that weren't used as often they would need to be exercised back and forth. As far as buttons or deck sockets, typically deck sockets would not require that much maintenance. The only thing with the deck sockets was if the longshoreman the deck sockets would accumulate dust and the longshoreman would have to remove the dust when attaching the pin. But other than that, no.

Mr. Kucharski: Was any of the maintenance or repairs captured in the planned maintenance system to the vessel, the AMOS system?

WIT: For the cargo securing I don't believe there was a specific entry in AMOS for deck sockets or D rings.

CAPT Neubauer: Sir, I have a follow up question on Exhibit 19. Do you know if the company was responsive to this request?

WIT: Yes, sir.

CAPT Neubauer: Do you know how long it took for them to respond?

WIT: No I don't.

CAPT Neubauer: But they did fulfill the request to your knowledge?

WIT: To my knowledge I signed off the vessel shortly after this and on my time on vacation in San Juan I would Port Mate on the El Faro and assist with the cargo operations. And I do recall the repairs being made on the second deck.

CAPT Neubauer: Thank you.

Mr. Kucharski: Did you feel rushed in any way to review the stability or lashing calculations before you sailed?

WIT: No, sir.

Mr. Kucharski: I believe earlier you said that the locking spud could be rotated, they were rotated on – to lock in place, the roloc box, is that correct?

WIT: Yes, sir.

Mr. Kucharski: Please look at Exhibit 109 page 7 again, uh page 5, sorry. Is it your opinion that a locking spud could go in there and rotate 90 degrees in that – what you're seeing there in that picture?

WIT: To clarify, sir, this is a container on the main deck and what would lock would be a twist lock, a manual twist lock. And yes looking at this picture I would say that a twist lock would lock, a manual twist lock in this configuration.

Mr. Kucharski: Well I think if we look at the other diagram we could look at it again, they call it the locking spud in the cargo securing manual.

WIT: Okay, sir.

Mr. Kucharski: That could go in there and turn 90 degrees looking at that picture?

WIT: Yes, looking at this picture it appears that the semi auto, or the manual twist lock would lock, yes.

Mr. Kucharski: Did you have any concerns about the stability or lashings on sailing?

WIT: Are we speaking about El Faro?

Mr. Kucharski: Yes.

WIT: No I did not have any concerns.

Mr. Kucharski: Did you or others aboard find loose lashings after sailing?

WIT: I can't recall specifically whether or not we found loose lashing after sailing.

Mr. Kucharski: I believe earlier you said on some of your rounds as part of your duties on El Yunque you went around and you lashed there also, tightened lashing.

WIT: Yes, sir.

Mr. Kucharski: Were you – did you also have the Mates, Second Mate on the El Faro go around and check for loose lashings?

WIT: Yes it's possible on my time on El Faro that I requested the help of the Mates to verify lashings.

Mr. Kucharski: Was there any particular type of cargo or stow position that you had to pay more particular attention to in way of cargo lashings?

WIT: We would pay more attention to, for example the ramps any trailers that would be stowed on the ramps, or cars either uphill or downhill. And we would also pay attention to – to the area in cargo hold B on the third deck where the elevator opening is.

Mr. Kucharski: And what did you pay attention to particularly on the lashing of that particular cargo?

WIT: Being that trailers are secured in the vicinity of the opening of the cargo elevator we wanted to make sure that there would be no possibility of cargo becoming loose around that area.

Mr. Kucharski: After the vessel sailed did, we're talking about El Faro, did you or the members of the crew have to add additional lashings to the cargo?

WIT: No I don't believe so.

Mr. Kucharski: Can the ship's force add extra lashings to the container stacks after the vessel leaves port?

WIT: Yes we could.

Mr. Kucharski: These are stacked 3 high, so could you explain how you would do that on the stacks if you had to go 3 high?

WIT: We didn't have the long rods if we needed to go 3 high. We only had short rods on board.

Mr. Kucharski: Do you know if they had the long rods ashore if you needed to go 3 high?

WIT: No I'm not aware.

CAPT Neubauer: Sir, did you ever see a long rod used in your time on either the El Faro or the El Yunque?

WIT: No, sir, I don't believe so.

Mr. Kucharski: Please look at Exhibit 68, its entitled container buildup screen capture. It's out of CargoMax. And this was an actual El Yunque, correction El Faro voyage 178. Have you ever seen a depiction similar to this during your time as – during your tenure as Chief Mate on the El Faro?

WIT: Yes, sir.

Mr. Kucharski: And can you explain what we're looking at in your words?

WIT: What we're looking at here, sir, is a depiction of bay 12 on the container deck and how the containers are loaded and their specific weights. In addition to values of were containers are lashed or lash margins or weights, their vertical center of gravity and their strength margin here.

Mr. Kucharski: Did you use this type of information to assess the strength margins for the container stack when the vessel sailed?

WIT: On which vessel, sir, on the El Faro?

Mr. Kucharski: Did you use it on either vessel?

WIT: On the El Faro, yes, sir.

Mr. Kucharski: When you were sailing as Chief Mate, correct?

WIT: Correct.

Mr. Kucharski: So you relied on this information to asses?

WIT: That is correct.

Mr. Kucharski: Do you know if this portion of the CargoMax program was approved or – by class?

WIT: I believe that the entire CargoMax software program is approved by class.

Mr. Kucharski: Would that include the damage stability portion of CargoMax?

WIT: I would have to review the CargoMax software to answer that question, sir.

CAPT Neubauer: Sir, did you ever use the damage stability capability in CargoMax?

WIT: No, sir.

Mr. Kucharski: Could you tell us if any values had to be programmed into the computer to obtain these values for lash margin and strength margin?

WIT: Those values, sir, would be entered by shore side personnel.

Mr. Kucharski: Did you review, you said you reviewed this type of information?

WIT: Yes, sir.

Mr. Kucharski: Did you confirm or review anything that the shore side may have had to enter first in there to get these values?

WIT: Yes, sir.

Mr. Kucharski: Could you tell us what you reviewed to ensure that the information was put in?

WIT: I would verify the weights on the containers as it – as it compared to the stow plan in addition to the specific container and the container length and the container particulars entered into each cell.

Mr. Kucharski: And when was the first time you would actually see this type of a diagram?

WIT: Upon receipt of packet from Don Matthews and plugging in the jump drive into my computer in my office.

Mr. Kucharski: And that was how long before the vessel sailed?

WIT: It could be 30 minutes or less before the vessel sailed.

Mr. Kucharski: And could you tell us looking at this diagram beneath the squares in the, they're like little squares, it say bay 12A at the center and then it has little squares with 12.1, you see the numbers in there?

WIT: Yes, sir.

Mr. Kucharski: And then beneath that it says in wording, lash, lash MGN WTBCG and STRMG.

WIT: Yes, sir.

Mr. Kucharski: Could you explain to us what your understanding of lash MGN is?

WIT: That would be the lashing margin, sir.

Mr. Kucharski: And STRMG?

WIT: That would be the strength, strength margin.

Mr. Kucharski: Could you tell us, in this particular one here, I'm not saying it's accurate if the vessel actually sailed, but it has a strength margin with a negative number in red, 2.5, could you tell us what that would indicate to you?

WIT: That would indicate that the strength margin has been exceeded.

Mr. Kucharski: And if you received this – if you received this type of information 30 minutes before the vessel sailed, could you tell us what you would do?

WIT: I would contact Don Matthew who would in turn possibly contact the longshoreman to add lashing to that particular stack.

Mr. Kucharski: Would extra lashings cure the strength margin problem?

WIT: Forgive me, sir. As it relates to strength margin - In order for this to be rectified it wouldn't be under lash margin, it would be under stack weight, sir.

Mr. Kucharski: It would be stack weight. And how would you rectify stack weight?

WIT: Uh.

Mr. Kucharski: That was exceeded?

WIT: Don Matthews would take appropriate measures to discharge a container on this stack and possibly add another container or leave it the same so that it wouldn't exceed the stack weight.

Mr. Kucharski: So would that delay sailing? Would they have to have the container crane physically take containers off and?

WIT: Depending on when I received the packet it's possible it could delay sailing, yes.

Mr. Kucharski: As to lash margins you mentioned that's the second line down, if you saw that a lash margin was exceeded on the top stack what would you do? What could you do?

WIT: If the lash margin would be exceeded we could add lashing to the bottom stack which would aid in the lashing margin reducing and not exceeding.

Mr. Kucharski: I don't know if this was asked, but forgive me if it was, but were extra lashings on the containers ever put on in the time you were Chief Mate on the El Faro?

WIT: I can't recall specific instances where containers or lashing was added to containers.

CAPT Neubauer: Sir, before we move on I would like to get a little more background on the – on Exhibit 68 if you would? It's labeled as a load case file for voyage 178 Sierra for August 11th, 2015. Can you help me understand what this – when this would come to your – when you would be able to review that? Also were you on board for this voyage?

WIT: No, sir. I signed off the El Faro July 28th, so no I was not on board for this voyage. And as I said before I would verify this once I received the packet from Don Matthews.

CAPT Neubauer: Okay. So fairly late in the process of loading this would come along with the CargoMax summary, is that accurate?

WIT: Prior to departure I would receive the cargo packet, yes.

CAPT Neubauer: Thank you. Mr. Kucharski.

Mr. Kucharski: Did you consult the cargo securing manual at all for sufficiency on the securing of the containers? I'm not sure if I asked that, but I just want to make sure I cover it.

WIT: If needed, yes, I would consult.

Mr. Kucharski: And would you run calculations using the cargo securing manual or would you rely on this type of information, the cargo – the container build up for the sufficiency of the lashings and the stacks weights whether they exceeded requirements?

WIT: I would rely on the CargoMax software.

Mr. Kucharski: Were you aware of any audit made, either internal or external as to the sufficiency of lashings, asked earlier I think about the stability, but the lashings themselves aboard the El Faro or for compliance to the plans to the cargo securing manual?

WIT: I'm sorry I lost you. Can you repeat that please?

Mr. Kucharski: Any audits made for securing cargo or sufficiency of lashings, were you aware of any audits?

WIT: Yes, sir.

Mr. Kucharski: Could you tell us what those are that's entailed?

WIT: If I remember correctly during our external audit with ABS, ABS requested that a lashing inventory be supplied.

Mr. Kucharski: And was just the inventory to see if you had enough lashings on board?

WIT: Correct.

Mr. Kucharski: Now can you tell us if you had any specific training for lashing securing of the cargo?

WIT: Any specific training for lashing or securing of cargo would have been on the job training where on my time as Second Mate on the El Yunque initially the Chief Mate would have taken me about the ship and instructed me on how cargo would be secured properly. In addition to reviewing the cargo securing manual which would be provided by him.

Mr. Kucharski: Did you ever do a full calculation of a cargo securing arrangement for any piece of cargo on board that vessel?

WIT: Could you explain further please what you mean?

Mr. Kucharski: The cargo arrangement, the cargo securing arrangement for the whole trailer, for the whole flat rack with a container on it. Have you ever done a full calculation for that cargo securing arrangement?

WIT: I don't understand your question, sir.

Mr. Kucharski: The cargo securing manual has the full calculation for a cargo securing arrangement. Have you ever done a full calculation to see if it complied on any full cargo arrangement, all the chains, the angles, put everything into the hooks and breaking loads and all of that, all that's required of that? Have you ever done that on any piece of cargo?

WIT: No, sir.

Mr. Kucharski: No further questions.

CAPT Neubauer: Mr. Roth-Roffy do you have any questions?

Mr. Roth-Roffy: Good afternoon, sir. Tom Roth-Roffy, NTSB. Just a couple of follow ups, sir. Going back to your email that was Exhibit 19 regarding the inventory and the request for repairs. Could you provide more information about the nature of the repairs to the D rings that you were requesting the material for? And what that material as described as collar, if you could, sir, describe what that is?

WIT: Okay. The D ring is in essences the actual ring where the chain would secure to. The collar is the piece of steel that's actually welded to the deck to secure the D ring in place. Some D rings needed repair and that's what the email is about.

Mr. Roth-Roffy: So the nature of the repair then to where you just – explain that how the collars would be – the new collars would be installed?

WIT: Okay, sir. The – the Chief Engineer will assist in removing the D rings and collars from the deck. Those would be grinded off. The D ring would be put in place with the collar on top of it and it would be welded in place.

Mr. Roth-Roffy: And could you describe the technique used to verify the quality of repair? If you know, sir.

WIT: I couldn't answer that question, sir.

Mr. Roth-Roffy: Did you ever witness any load testing or other type of testing to verify that the strength of the D ring after it had been – had a new collar installed?

WIT: No, sir.

CAPT Neubauer: Do you remember if that work was ever done underway?

WIT: Yes, sir.

Mr. Roth-Roffy: Sir, there's some discussion, just for clarification about you seeking assistance of a Second Officer checking the securing of cargo. Now just to be clear were you referring to in port or underway or both?

WIT: In port the Third or Second Mate standing their watch would directly supervise the securing of lashing and cargo. And also underway if there was any need or if I ever requested assistance the Second or Third Mate, yes, would assist in verifying lashings.

Mr. Roth-Roffy: And sir, was it the assigned duties of the Second Mate to routinely check the lashings? Or was it just if you requested the Second Mate's assistance?

WIT: It would be at my request.

Mr. Roth-Roffy: Thank you, sir. That's all I have.

CAPT Neubauer: Does Tote have any questions at this time?

Tote Inc: No questions, sir.

CAPT Neubauer: Does ABS?

ABS: ABS has one point of clarification. As far as the CargoMax computer software, ABS can only approve the CargoMax software for stability purposes. And to the extent that the testimony suggested that there were any lashing approved by ABS, and we refer to MBI Exhibit 16 for the extent of ABS approval on CargoMax software.

CAPT Neubauer: Let the record show that Exhibit 16 is a Herbert Software Solutions International letter, or actually it's an ABS letter to – dated 8 February, 2008 to Herbert Software Solutions International. And the subject is SS El Faro. Is that sufficient, sir?

ABS: Yes, Captain, that's sufficient, thank you.

CAPT Neubauer: Does Mrs. Davidson have any questions?

Ms. Davidson: No questions.

CAPT Neubauer: Dr. Stettler do you have any questions?

Mr. Stettler: Are we done completely or are we going to make another round?

CAPT Neubauer: I would like to do a final round. So if there are any final questions I'll give to Dr. Stettler at this time.

Mr. Stettler: Mr. Torres I just have two additional questions on a different topic regarding fire dampers on the El Faro. There are the ventilation system for the cargo holds includes trunks, openings on the side shell which are above the second deck level weather deck. And going down into the fire – excuse me going down into the cargo holds are isolating fire dampers which are normally in the open position. I would like to ask you basically are you aware of any times when those, any of those fire dampers on the El Faro were closed for any reason while underway?

WIT: Part of the Second Mate's duties on the El Faro is a routine monthly inspection of the fire dampers. At that time the Second Mate would exercise and close the fire dampers. Those fire dampers would be left open typically. But that was one of his inspections.

Mr. Stettler: Are you aware of any instances when those fire dampers were closed in preparation for heavy weather?

WIT: No, sir.

Mr. Stettler: Thank you.

CAPT Neubauer: Mr. Fawcett do you have any questions?

Mr. Fawcett: Yes, sir, Captain. Thank you Mr. Torres. These are some human performance related questions. When you were aboard El Faro how many hours of consecutive sleep would you get while the vessel was at sea?

WIT: Either at sea or in port we would adhere to the STCW hours which state that no more than 14 hours are worked with 10 hours of rest. Out of those 10 hours of rest one of them have to be in a 6 hour period. And those two rest periods cannot exceed 2.

Mr. Fawcett: So for yourself personally how many, could you estimate the number of consecutive hours of sleep?

WIT: A minimum of 6, I can't specifically recall.

Mr. Fawcett: Would you say based on your experience aboard El Faro that was typical for the crew including the unlicensed personnel?

WIT: I would have to say that typically on the El Faro rest hours were adhered to and everybody's schedule is different. But I do have to say that everybody's hours were not exceeded and that everybody got adequate rest.

Mr. Fawcett: Did you ever hear anyone or talk to anybody about being fatigued or tired during their watches or work periods at sea?

WIT: No, sir.

Mr. Fawcett: Do you know of anybody that took any kind of medication or over the counter medications or products to mitigate the effects of fatigue? And by that I mean either prescribed medications or something like energy drinks or no doze or anything like that?

CAPT Neubauer: Mr. Torres, before you answer I just want to make sure that we don't identify a specific individual, just in general please.

WIT: Understood. No, sir, I'm not aware of anybody taking anything what you mentioned.

Mr. Fawcett: Were there anything's on board the ship that would have been problems while the ship was at sea or in port that might cause someone to not have quality sleep? Because we talked a little bit about you know how much sleep you get, but we're concerned about quality of sleep. So was there anything that went on on board ship that might have contracted from being able to get a quality sleep?

WIT: No, sir, I don't believe so.

Mr. Fawcett: Thank you very much, sir. That's all the questions I have.

CAPT Neubauer: Commander Denning. Commander Denning.

CDR Denning: So I have a few follow up questions to Mr. Kucharski's cargo securing line and then just a few other additional questions. If I could have you go back to Exhibit 109 briefly. So looking at photos 1, 2, 3, and 6, and he asked you if this was common arrangements on El Faro. I want to hone in specifically on the hooks directly to the D rings and other structural members. Was it common on El Faro to hook it in that arrangement with the hook directly to the D rings vice putting the chain through?

CAPT Neubauer: And Commander Denning can you just clarify again, this is El Yunque that he's looking at.

CDR Denning: Yes, these photos are El Yunque and I'm relating it to operations on El Faro.

WIT: Yes, sir, I would say that it is common.

CDR Denning: And then if we could also go to page 3. I want to understand as far as the roloc box configuration, they're typically, the box itself is typically attached to the button. You stated that this is somewhat common, but just to clarify, is it typically necessary to attach the hook and chain to the roloc box or is it usually just attached to

the button and then the trailer itself is what's lashed additionally? In other words the hook and chain on the left side of the picture, is it common to lash the roloc box separately from attaching it the button?

WIT: Yes, sir. Dependent on the stow position of the trailer.

CDR Denning: Could you expand on that a little bit? When it would be necessary and when it wouldn't?

WIT: As I said before when trailers on the second deck are stowed on the wings additional lashing was added to the roloc box. So the two chains on – or the left – the chain on the left side of the picture would be added on the wings of the second deck trailers.

CDR Denning: Thank you. This is a new line of questioning. Just a few brief topics. If you could turn to Exhibit 75 for me. So Exhibit 75 is a – are some images that were prepared for us by the Coast Guard Navigation Center and it's for – it's taken from some AIS positions from El Faro when they departed San Juan on the 14th of March. Does everybody have that exhibit, any challenges?

CAPT Neubauer: We're just going to standby a second and present that on the screen.

CDR Denning: Exhibit 75. So this shows the El Faro's track as it departed San Juan on the 14th March, you were on board on that date, correct?

WIT: I would have to look at my dates. I'm not sure whether or not I was on board.

CDR Denning: According to our records you were on board.

WIT: Okay, all right.

CAPT Neubauer: Commander Denning is the voyage that had the power failure?

CDR Denning: It is. And that's where I'm going with this, with this particular line of questioning. So we've heard about the loss of propulsion leaving San Juan from an engineering perspective. I would like for you to describe the scenario from a deck officer's perspective.

WIT: Okay. We had just departed San Juan, the pilot had just departed the vessel. I was in my office at the time one deck below the bridge doing paperwork and the Captain asked that I come up to the bridge. At that time he made me aware that – that the vessel had lost propulsion.

CDR Denning: And do you recall how long propulsion was lost for, how long the vessel was adrift?

WIT: If I remember correctly possibly 15 minutes.

CDR Denning: And during that time were you or any of the other crew members concerned for safety of the vessel?

WIT: From what I remember correctly, once we lost propulsion we were still making headway. Basically if I remember correctly what Captain Axelsson did was to turn the bow into the wind so that we could make headway for as long as possible until the engineers could restore propulsion. Uh and it wasn't until we started making stern way where we had lost the headway we had that the engineers restored propulsion and we were able to continue.

CDR Denning: Did Captain Axelsson specifically describe his feelings about this incident to you? Was he frustrated or concerned in any way?

WIT: During the incident, yes. Captain Axelsson was concerned.

CDR Denning: Could you describe the concerns that he relayed to you?

WIT: He was basically concerned of what the wind and sea would do and how we would get carried, the ship would get carried if we didn't restore propulsion.

CDR Denning: And so considering this incident and the rest of your time on board El Faro, can you just describe for us your feelings on the reliability of the propulsion plant from the deck officer's perspective?

WIT: As far as I'm concerned my time on the El Faro the reliability of the vessel and its machinery was spot on. This was caused by human error and there were no other issues that I could speak of, or I could say that the machinery would perform below standard.

CDR Denning: So you aren't aware of any other propulsion losses while you were on board?

WIT: That's correct.

CDR Denning: That's all the questions I have on that particular exhibit and incident. The last question I have is I would like for you to describe for us, I understand you were on board the El Yunque on the 29th of September and you departed San Juan in route to Jacksonville at the same time approximately that the El Faro departed Jacksonville on the opposite trajectory on its way to San Juan. I understand there were some VHF communications between the two vessels as they passed. I would like for you to describe your observations and participation in those discussions.

WIT: Okay. This would have been on Wednesday afternoon towards the end of my 12 to 4 watch, my afternoon watch on the bridge. I had just been relieved by the Chief Mate and as I was about to depart the bridge I noticed on the AIS that the El Faro was in range. Not shortly thereafter the Chief Mate on the El Faro, Steve Schultz contacted

us. Now when he did the Chief Mate on the El Yunque Kwesi Amoo, Kwesi Amoo replied and a conversation began. And if I remember correctly Steve asked Kwesi for some light bulbs or something that the El Faro requested and Kwesi told him that we would leave them in Jacksonville for them so they could pick them up. In addition to Steve requesting if we had a tarp for the Panama Canal awning on the bridge wing. Then at one point the conversation broke and I believe Steve contacted us again where Captain Stith, Captain Kevin Stith thanked Steve for showing him around the El Faro for the time that he was on there. And Kwesi made a statement to Chief Mate Steve basically saying where are you guys going. And I don't recall specifically what Steve's reply was to Kwesi's comment.

CDR Denning: Do you recall what he meant by that question, where are you going?

WIT: No I don't recall.

CDR Denning: Did it appear that the El Faro was taking a different route than normal?

WIT: It did appear that the El Faro was taking a different route, yes.

CDR Denning: So we had an exhibit earlier that showed the route that they took enroute on the accident voyage and it was a bit to the South from the normal route. Does that sound familiar from your observations?

WIT: I would have to look at the exhibit, sir.

CDR Denning: We can bring that up for you. Lieutenant Commander Yemma if you could bring up Exhibit 1 please. I believe it was 1, it may have been 2.

CAPT Neubauer: That is Exhibit 2.

CDR Denning: Exhibit 2. We don't even necessarily need to display it if you would prefer to just look at it in your binder, either way.

WIT: Okay.

CAPT Neubauer: Okay. It is displayed now.

CDR Denning: So page 5 of Exhibit 2 is what I was referring to. So that just shows the El Faro going a slightly Southern route compared to -- the usual route is indicated in sandy brown type color.

WIT: Yes, sir.

CDR Denning: So was there discussion about the weather during those VHF communications?

WIT: No, sir, I don't believe there was. The only, to clarify, the only statement I remember Kwesi saying was that we increased speed on the El Yunque to get ahead of the storm.

CDR Denning: And to the best of your recollection did anyone on the El Faro indicate that they were, you know aware of the weather or deviating further to the South because of the weather?

WIT: It's possible. I believe Chief Mate Steve mentioned that they were aware of the weather.

CAPT Neubauer: He mentioned that the El Faro was aware of the weather?

WIT: I do believe he mentioned that, yes, that the El Faro was aware of the weather.

CAPT Neubauer: Sir, did you and any of the crew members after that point have any conversations about the El Faro's voyage specifically related to the diverted route or the weather concerns? Any comments?

WIT: It's possible that among us on the El Yunque we might have had a conversation that afternoon, yes.

CAPT Neubauer: Can you just, I know it's hard to remember, but generally describe the contents of that conversation?

WIT: It was my feeling in the conversation that the crew of the El Faro was experienced in every way shape and form that if they determined that they were going to take that route that it was up to them to make the decision considering the background of the experience of Captain Davidson, Steven Schultz and everybody else.

CAPT Neubauer: Was it your understanding at that time that they may encounter portions of the storm?

WIT: I would have to – to make that determination I would have to say that I would have to be on the El Faro, look at the predictions and to see what they would actually experience.

CAPT Neubauer: But projecting out at the time did you feel there was a possibility they may encounter some of the storm based on the course they were taking?

WIT: As I said I can't make that determination based on the fact that I wasn't on board, I wasn't seeing what they were seeing, I don't know what messages they received, how accurate it was or anything else.

CAPT Neubauer: Yes, sir. So you really didn't do an assessment because you weren't on board that vessel?

WIT: That is correct.

CAPT Neubauer: Thank you. Mr. Fawcett.

Mr. Fawcett: Mr. Torres, just returning to that 14th of March issue where the vessel lost propulsion. Did you participate in an investigation on board the vessel as to what occurred and the consequences of that event?

WIT: No I did not participate in any investigation.

Mr. Fawcett: Was there a discussion on board, you know how that was classified? Was that classified as a near miss or an actual propulsion casualty?

WIT: I don't recall specifically how it was classified.

Mr. Fawcett: Do you know if that event was reported to the Coast Guard at the time?

WIT: I'm not sure whether it was or not, sir.

Mr. Fawcett: Thank you, sir.

CAPT Neubauer: Mr. Kucharski.

Mr. Kucharski: Mr. Torres are you familiar with the term hurricane profile?

WIT: Yes, sir.

Mr. Kucharski: When you were Chief Mate on the El Faro did you ask for a hurricane profile?

WIT: No, sir.

Mr. Kucharski: Do you know if it was put on the ship? Or the hurricane profile – could you explain what a hurricane profile is?

WIT: Hurricane profile is basically what details in the cargo securing manual adding extra lashing in preparation for rough or heavy weather.

Mr. Kucharski: Do you know if when you were on El Faro as Chief Mate if they were using a hurricane profile?

WIT: No I don't believe we were.

Mr. Kucharski: Do you know what it entails? You said putting extra lashings, do you know where the lashings would be put if a hurricane profile were called for?

WIT: Yes, sir. Typically the additional lashings would be added to ro-ro, second and third deck and tank top.

Mr. Kucharski: Any particular areas in ro-ro?

WIT: Generally the additional lashings would be added throughout the entire ro-ro plan.

Mr. Kucharski: Okay. And just to be clear I think you said that you were not aware of them doing a hurricane profile while you were there?

WIT: No as I've stated before on my time on the El Faro there was no specific instance where we experienced rough weather. So the precaution – the precaution wasn't necessary.

Mr. Kucharski: Thank you. No further questions.

CAPT Neubauer: Mr. Torres I think we're getting close. I just have a couple final questions. Thinking back to the conversation that you had on the bridge of the El Yunque on the return voyage when you met the El Faro prior to its storm voyage, or during its storm voyage, do you remember Captain Stith having an opinion on the route taken by El Faro?

WIT: No, sir, I don't recall.

CAPT Neubauer: And just talking about the general morale on the El Faro, how would you characterize it, sir?

WIT: Normal, nothing out of the ordinary. As far as I understand in general the crew was happy and teamwork was – teamwork and safety was basically adhered to and practiced throughout the ship.

CAPT Neubauer: Throughout the spring and summer of 2015, did you sense any tension between any of the crew members, officers, in regard to job assignments for the new LNG Tote vessels?

WIT: Yes.

CAPT Neubauer: And can you give me a background on what you observed?

WIT: Most of us were hoping to be basically selected for the Marlin Class vessels. Initially nobody was sure on who was going or not. And when I was appointed I was told it was basically to be kept quiet and I was asked to sign an NDA, a non-disclosure agreement. As time went by those that weren't selected basically were disappointed that they had not been chosen.

CAPT Neubauer: Did people abide by non-disclosure agreement, sir? Was it generally pretty well understood who was getting the job and who wasn't?

WIT: I believe, yes, the non-disclosure agreement was abided to.

CAPT Neubauer: Do you think that effected relations between officers or communications at all?

WIT: No I don't believe it did.

CAPT Neubauer: Did you see a change in the demeanor of Captain Davidson during that time? And specifically related to the job assignment. Or not being assigned to the new Marlin Class.

WIT: I could say that he was disappointed, yes.

CAPT Neubauer: And how would you make that assessment, sir?

WIT: At one point I believe at the – during the last time I was on board the El Faro Captain Davidson came up one morning and pulled me outside of the bridge wing. And then he proceeded to tell me that he was disappointed he hadn't been selected.

CAPT Neubauer: Was it your opinion that he was still hopeful that Tote would assign him to one of the vessels?

WIT: Yes, it was my opinion that it was possible he was still hopeful.

CAPT Neubauer: Did he say his plan for working for Tote or what he might do?

WIT: No, sir, I don't believe that was mentioned.

CAPT Neubauer: Are there any final questions for Mr. Torres at this time?

Tote Inc: Not a question, sir, just for the record. Mr. Torres was about the March 2014 incident in San Juan with the loss of propulsion and for the record Captain Axelsson did file a 2692 marine casualty report with the Coast Guard and we have that if you need that in writing.

CAPT Neubauer: Yes, sir. And I will confirm that it is also in the Coast Guard MISLE database, we received that report.

Tote Inc: Thank you, sir.

CAPT Neubauer: ABS?

ABS: No questions, sir.

CAPT Neubauer: Mrs. Davidson?

Ms. Davidson: No questions.

CAPT Neubauer: Mr. Fawcett.

Mr. Fawcett: Mr. Torres just for clarification. During Hurricane Joaquin when you were on board the El Yunque in close proximity to the El Faro, did you – do you recall if

during any communications with the El Faro that you passed the wind that you had encountered during your voyage?

WIT: No I don't believe that conversation took place.

Mr. Fawcett: Thank you. Thank you Captain.

CAPT Neubauer: Thank you. That reminds me of one final question. Do you know if the anemometer was working the El Faro, sir?

WIT: At the time I left the vessel on July 28th, yes it did work.

CAPT Neubauer: July 28th, 2015?

WIT: Correct.

CAPT Neubauer: Are there any final questions at this time? Mr. Torres, you are now released as a witness at this Marine Board of Investigation. Thank you for your testimony and cooperation. If I later determine this board needs additional information from you I will contact you through your counsel. If you have any questions about this investigation you may contact the Marine Board Recorder, Lieutenant Commander Damian Yemma. At this time do any of the parties in interest have any concerns with the testimony provided by Mr. Torres?

Tote Inc: No, sir.

Ms. Davidson: No, sir.

ABS: No, sir.

CAPT Neubauer: Thank you for your testimony, sir. The hearing is now in recess and we'll reconvene at 1:15.

The hearing recessed at 1227, 25 February 2016

The hearing was called to order at 1317, 25 February 2016

CAPT Neubauer: The hearing is now back in session. We will now hear testimony from Lieutenant Kimberly Beisner, U.S. Coast Guard, Sector Jacksonville. Lieutenant Commander Yemma please administer your oath and ask some preliminary questions to Lieutenant Beisner.

LCDR Yemma: Yes, sir. Can you raise your right hand. A false statement given to an agency of the United States is punishable by a fine and or imprisonment under 18 United States Code section 1001 and may also subject you to discipline under the Uniform Code of Military Justice. Knowing this do you solemnly swear that the testimony you're about to give will be the truth, the whole truth and nothing but the truth, so help you God?

WIT: I do.

LCDR Yemma: Thank you, please be seated. Please start by stating your full name and spelling your last name for the record?

WIT: Kimberly Ann Beisner, B-E-I-S-N-E-R.

LCDR Yemma: And counsel?

Counsel: Jeffrey Travis Noyes, N-O-Y-E-S.

LCDR Yemma: And Lieutenant Beisner what is your current assignment in the Coast Guard?

WIT: My current assignment is at Sector Jacksonville as a Marine Inspection Apprentice and also Port State Control Branch Chief.

LCDR Yemma: Can you describe some of your general duties in that position please?

WIT: My current duties as Port State Control Branch Chief is that our division targets all vessels coming into the Jacksonville area of responsibility. We screen those vessels

and also determine whether they are due for some sort of inspection, security or safety exams and then we conduct those exams as well. And then as a trainee I'm also responsible for getting qualified in the different types of port state – or all sorts of inspections.

LCDR Yemma: What are some of your background, your work history relevant to your current position?

WIT: I am – I've been in since 2004 and I'm prior enlisted. I started out as an Operation Specialist. I went to Operation Specialist 'A' school and from there I went to port state – or correction, Group Port Angeles out in Washington State as a communications unit controller there. From there I went to District 7 command center as Operation Specialist First Class and did search and rescue cases at D7. I got selected for OCS out of District 7. Went to New London, Connecticut to officer candidate school. And then from there I went to Sector New York and I was in waterways management.

LCDR Yemma: And what is your highest level of education completed?

WIT: I have a Master's degree from Norwich University in diplomacy.

LCDR Yemma: Do you hold any licenses or professional certifications?

WIT: No.

LCDR Yemma: Thank you. Captain Neubauer will have questions.

CAPT Neubauer: Good afternoon Lieutenant Beisner and congratulations on your promotion.

WIT: Thank you.

CAPT Neubauer: What was your undergraduate degree?

WIT: Uh from University of New Hampshire it was communications and sociology.

CAPT Neubauer: Thank you. Just for the board Lieutenant Beisner participated in a ship rider program which is offered by industry, maritime industry for Coast Guard junior officers and other marine safety personnel to understand the life aboard an ocean mariner, a merchant marine vessel. It's a short program, just a few weeks but it exposes our marine safety professionals to life at sea. And that was offered by Tote to the Coast Guard and Lieutenant Beisner took – or participated in that program. Lieutenant Beisner I know during initial interviews the subject matter can be emotional. If you need any time please let the board know and we'll take as many recesses as we need. But the information is important so we'll definitely take the time to get through it. Do you have any questions before we start?

WIT: No Captain.

CAPT Neubauer: Mr. Fawcett.

Mr. Fawcett: Good afternoon Lieutenant Beisner.

WIT: Good afternoon.

Mr. Fawcett: So if you would try to steer clear of Coast Guard acronyms for the benefit of the general public and people that aren't familiar with the way we us acronyms. And you mentioned OCS and for the record that's officer candidate school. Is that correct?

WIT: Yes, sir.

Mr. Fawcett: All right. So we're going to be talking about the ship ride that you took on the El Faro in the late spring of 2015 and our – the questions we'll focus on your duties in general, also focus on that particular ship ride. Let us know, like the Captain said if you would like to take a break at any time. So what in your Coast Guard background

relates to your duties? Right now you said you – at the time of the accident just to clarify, were you involved with Port State Control?

WIT: Yes, sir. At the time of the accident I was the Port State Control Branch Chief.

Mr. Fawcett: So you hadn't branched out into training as a marine inspector, is that correct?

WIT: For the domestic side?

Mr. Fawcett: Yeah, correct.

WIT: No at that time I was still only inspecting foreign ships.

CAPT Neubauer: Lieutenant Beisner can you clarify what type of billet you were in, is it an apprentice marine inspector billet?

WIT: Yes Captain. I'm a marine inspection apprentice. And that's the current billet that I'm in.

CAPT Neubauer: Thank you.

Mr. Fawcett: All right. As the Captain mentioned Tote Services and other marine industry companies they provide Coast Guard marine safety personnel the opportunity to be familiar with shipboard operations, or any other kind of vessel operations. Can you talk a little bit about the personal benefits to you from that kind of training that you received?

WIT: For me the ship rider program provided a lot of insight to the day to day operations on board a ship. Prior to I had only had two weeks on board the Coast Guard Cutter Eagle, which is a training sailing ship which doesn't really pertain to inspections. So for me this gave me an opportunity to see what life was like out there for the mariners that I currently interact with on a daily basis. It also gave me some

more training on specific systems on board the ship, ship navigation, engine room experience and cargo operations.

Mr. Fawcett: Did you enjoy that opportunity?

WIT: I loved it.

Mr. Fawcett: So when you got ready for this assignment were you provided with some sort of training program plan or a sort of syllabus or checklist about tasks and goals that you were expected to accomplish?

WIT: I was. The program itself has a standard PQS, I don't the term for the acronym, but it is a list of basically workbook sign offs that you have to, different tasks that you have to complete and different items that you need to accomplish while you're on board. The program is designed for about a month long trip. So they essentially have a guideline for different watches you should stand and a series of things that you should participate in. I was on more of an abbreviated program, but I was still able to accomplish all the tasks in the workbook.

Mr. Fawcett: So just in general terms would you recommend that type of program that Coast Guard marine safety professionals be provided the opportunity to ride aboard a vessel in the industry and see what actually goes on aboard?

WIT: I think the program is very vital to the apprenticeship program. Particularly for people who have never been underway.

Mr. Fawcett: So before you came aboard the vessel did the Coast Guard explain to you that you were not going aboard the vessel as an inspector and to be working in a sort of regulatory oversight role? Can you talk a little bit more about that?

WIT: Correct. We were briefed on prior to going on board that we were there solely just to learn and absorb as much information as possible and not to go in – go onto the ship in an inspector capacity.

Mr. Fawcett: So are you aware if the ship received that same type of information that your role aboard the vessel was purely as an observer and not as a regulatory oversight person?

WIT: Yes. From the email that I was provided that the Captain was also copied on it states the goals of the program and clearly lays out that I'm on board solely for training.

CAPT Neubauer: Can you clarify which Captain you're referring to?

WIT: Captain Davidson.

Mr. Fawcett: I just have a couple more questions. When did you go aboard the vessel and when did you sign off the vessel?

WIT: I got on board on May 19th, 2015 and got off on June 1st.

Mr. Fawcett: And during that time can you talk to us just very briefly about, you know what the routing of the vessel was, or how many voyages, or where you got aboard and where you went on board the El Faro?

WIT: I boarded the vessel in Jacksonville and did two round trips to San Juan, Puerto Rico and back.

Mr. Fawcett: Thank you very much. I'll pass my questions to Captain Neubauer.

CAPT Neubauer: When you were assigned to the vessel were you assigned a mentor to shadow on board?

WIT: No.

CAPT Neubauer: Were you given a safety indoctrination when you boarded the vessel?

WIT: Once we got on board that first day I checked in with the Chief Mate and he told me that the next following morning, once we got underway that I would do a safety indoc with the Third Mate. So that following morning I did a three hour walk around the ship safety indoc and went over all safety procedures.

CAPT Neubauer: Were you satisfied with the safety brief you received?

WIT: Yes.

CAPT Neubauer: Do you remember any extra personnel like a Polish riding gang, people that would be in addition to the crew while you were on board? Or even cadets, any other?

WIT: The only additional people on board were myself, one of my petty officers and then two cadets, one engineering and one deck cadet.

CAPT Neubauer: Were they involved in a longer program on board?

WIT: The engineering cadet was on board for about a month and I believe the deck cadet was on for 3 months.

CAPT Neubauer: And do you know where the cadets were from?

WIT: They were both from Maine Maritime.

CAPT Neubauer: So can you go through a typical day on board underway?

WIT: Sure. For myself and my petty officer that came with me we would wake up, have breakfast and then immediately go to the bridge. Our days changed every day just to – so that we could utilize our time and learn everything we could about the ship in the short time that we were given. We usually started on the bridge. From there we would

either stand a full watch on the bridge or if I knew of any special projects going on we would tag along with whoever was doing those types of projects. I also worked with the different mates to achieve the tasks that I needed to complete while on board. Some of those included rounds. So I would try to schedule what I was going to do based on what people were doing that day. But we would take turns of going down to the bridge, or going up to the bridge and then also spending some time in the engine room. But on a day to day basis it kind of changed. But we were always either on the bridge or in the engine room for the most part.

CAPT Neubauer: Were you training in like an officer capacity or more of the like a deck crew?

WIT: I was training in more of an officer capacity.

CAPT Neubauer: Do you remember what watch rotations you stood?

WIT: Our watches varied, we didn't stand the traditional watches. I would say that for most of the time I was on board we did official bridge watches. For the engine room we didn't necessarily stand particular watches, we just stayed down there for a couple hours at a time. But all of the time that we spent was during daytime operations.

CAPT Neubauer: What was your perception of the crew's willingness to have you on board? Did you feel welcome on board?

WIT: The first two days were a little difficult, people seemed confused on why we were on board. But once we started talking to them and warming up to them and spending time with them on watches they were all very welcoming.

CAPT Neubauer: Was there anybody in particular that helped you get your professional qualification standard signed off or anybody that served as kind of an informal mentor while you were on board?

WIT: I would say for formal mentor it would be the Second Mate Danielle.

CAPT Neubauer: Do you remember her last name?

WIT: Randolph.

CAPT Neubauer: Can you talk about some of the interactions you had with the Second Mate?

WIT: I stood the majority of my time with her on board.

CAPT Neubauer: Would you like to take a recess?

WIT: No, I'm okay. I worked with her a lot on learning navigation and overall bridge watch. Her and I really connected because we had a lot in common and I felt the most comfortable with her on board. So I kind of shadowed everything that she would do. So I did different types of rounds with her. I did a soundings round. We checked fire dampeners. We did a cargo securing round. And I kind of monitored her semi closely during cargo operations in port. But I felt that if I had any questions about my PQS workbook items I would go to her and ask a lot of questions and just talk to her about what it's like to be at sea.

CAPT Neubauer: Did she sign off the majority of your PQS?

WIT: I have a mix of signatures, but I would say she signed off the large majority of them.

CAPT Neubauer: Can you tell me a little bit more about the feedback you received from the Second Mate about life on the El Faro?

WIT: For the most part I mean she was very happy being on board the ship. She had a long history with Tote and their other ships, the El Morro and El Yunque and El Faro. So I would say that from my understanding she had a really good working relationship on board. I think she had normal like work complaints as most people would on just a normal basis, but overall she seemed pretty happy on board and enjoyed her job.

CAPT Neubauer: You mentioned normal work complaints. Were there any work rest complaints?

WIT: She did express that due to her watch rotation she was often tired. She never seemed tired, but she – because of her sleeping rotation it was harder than some of the other watch rotations. I feel as though she did say she got most of her rest hours, but it was just a weird sleeping rotation.

CAPT Neubauer: Do you remember which watch rotation she was on?

WIT: She had the 12 to 4's.

CAPT Neubauer: Did she ever express how long her typical work day was in hours?

WIT: She worked a strict 12 hour shift. So she would wake up in the morning, or well correction, she got off of watch at 04 in the morning and then would have to be up by 08 to commence the rest of her duties while not on watch. And then she would – and those usually included her rounds and soundings and just other maintenance projects that she had to get done. And then she would go to watch at 12 in the afternoon and stay on board – stay on the bridge until 1600 and then she would just grab dinner to go and then either work out quickly and then go to bed and then wake up at midnight to start her watch rotation again.

CAPT Neubauer: Can you estimate how many hours of uninterrupted sleep that would equate to?

WIT: I'm not sure if I could speculate on that because I don't know after she went to her room I didn't know when she was actually going to bed.

CAPT Neubauer: Okay. No problem. Did you ever have a chance to talk to the Second Mate about any morale issues on the El Faro? What was the – was there a tension level on the vessel?

WIT: It was kind of mixed. I felt like there was definitely tension in regards to what people already said in the past about the new ship, the old ship, there's a lot of discussions on board on who was going where and who was happy about and who was unhappy about it. On a day to day basis though while we were eating meals the officers seemed to get along well.

CAPT Neubauer: So there seemed to be a lot of underlying tension amongst the crew?

WIT: Yes Captain.

CAPT Neubauer: Do you think that effected communication between crew members?

WIT: I didn't see any break downs in communication in regards to that kind of tension.

CAPT Neubauer: Did the Second Mate ever tell you anything specifically about Captain Davidson, his leadership style?

WIT: You're asking what she specifically said, or what I observed?

CAPT Neubauer: I would like to know if she told you anything specifically about Captain Davidson. If she described him in any way to you.

WIT: She told me that he was very hands off of – wasn't involved in a lot of the operations that they did. That he often, or correction, not often but sometimes had a temper and would get angry. Those are the only things I remember.

CAPT Neubauer: Is there something – is there something you observed that you think is significant about her relationship with the Captain, working relationship?

WIT: I never saw any problems in their interaction while I was on board.

CAPT Neubauer: They seemed to work together professionally?

WIT: They did.

CAPT Neubauer: Did you ever see them talking about navigational issues together?

WIT: I don't remember.

CAPT Neubauer: Did you ever stand a watch on the bridge with the Second Mate?

WIT: Yes.

CAPT Neubauer: Do you remember any issues with her checking the weather, anything along those lines?

WIT: I don't remember any issues with her checking the weather, I know that the weather was checked every time we were standing a bridge watch. They went over the weather computer with me as one of my sign offs. But I don't remember there ever being any problems with her obtaining weather.

CAPT Neubauer: She never complained about communication flow, getting information updates on the vessel?

WIT: No.

CAPT Neubauer: Did anyone else provide you any feedback on Captain Davidson besides the Second Mate?

WIT: I don't think anyone provided me specific feedback on Captain Davidson. There were some time where the Captain had made comments to us, by us I mean me and one of my petty officers who were on board stating that we made the crew uncomfortable for being there and other people on the crew would come up to us and say that's not the case, that they're happy that we're there. So that would be the only time that I would see them kind of saying something against what the Captain said.

CAPT Neubauer: Do you have an idea why the Captain would tell you and another Coast Guard petty officer who's from Sector Jacksonville also?

WIT: Yes.

CAPT Neubauer: Do you have any idea why the Captain would tell you that – and the petty officer that you were making the crew uncomfortable?

WIT: The conversation arose when on one of the workbook items it asked what type of morale they have on board the ship and I said well it looks like most people just do their job and go to their rooms. And he said well it's because you guys are on board and you make people uncomfortable. He said that when we're not on board usually they all play cards and watch TV together. Where I was told by the crew that was not the case. The only inclination that would make me think that we would make the crew uncomfortable is because we're the Coast Guard and we normally regulate them. So it would just be a weird working relationship for us to be on board as trainees.

CAPT Neubauer: Did the Captain say that comment to you in private or was it in front of other crew members? About being uncomfortable.

WIT: I think the comment was made in private, but that comment got relayed out to other people aboard the ship because they brought it to my attention.

CAPT Neubauer: Who relayed the comment?

WIT: I'm not sure. We may have brought it up, I may have mentioned it to Danielle or somebody else and then it kind of spread across – around the ship.

CAPT Neubauer: At this time I'm going to ask the NTSB if they have any questions. Mr. Roth-Roffy?

Mr. Roth-Roffy: Thank you Captain, Brian Young please.

Mr. Young: Good afternoon Lieutenant.

WIT: Good afternoon.

Mr. Young: Just three questions. At any time while you while you aboard the El Faro did you experience any rough weather?

WIT: No I did not.

Mr. Young: And during your time aboard the El Faro did you participate in life boat drills?

WIT: I participated in one life boat drill in the two weeks that I was on board.

Mr. Young: And do you remember during the drills if either life boat was lowered from its cradle?

WIT: One of the, actually, sorry, both of the life boats were lowered to the embarkation deck. I only saw one of them because I was on one side.

Mr. Young: And were there any problems in lowering the life boat to the embarkation level?

WIT: There were no problems.

Mr. Young: And the last question is, have you participated in any other ship rider programs on any other vessels?

WIT: No.

Mr. Young: Thank you.

Mr. Roth-Roffy: Tom Roth-Roffy, NTSB. Good afternoon Lieutenant. Just a question or two. During your time that you were working in the engine room can you give us an idea of sort of the work that you were doing? Was it preventative maintenance actions, repair items or a combination?

WIT: When I was in the engine room a lot of it was more of just spending time with the officer on watch going through the pieces of machinery and kind of learning the engineering side of things. I did work with the Second Engineer to do soot blowing. At one point I also did maneuvering operations from the engine room. I participated in an oiler round, both with one of the oilers and then once on my own just to test my knowledge. But most of it was just more in a learning capacity. If they were doing any sort of maintenance, which I don't remember if they were, I tried to observe everything that I could.

Mr. Roth-Roffy: And during your interaction with the engineering crew members did you received any negative comments about the Captain, Chief Engineer, or any of the other crew members?

WIT: No, not at all. The engineering staff were really content and they never said anything negative about anybody on board.

Mr. Roth-Roffy: And do you recall if any of the engineering crew members had any discussion with you about any problems with the machinery, the engine room systems, that concerned them?

WIT: No. None of the engineers expressed any concern to me about the state of the engine or anything like that. We did discuss what would happen if there was any casualties more so just for my knowledge. But they had never expressed any concern about operations.

Mr. Roth-Roffy: Thank you very much. That's all I have. Captain.

CAPT Neubauer: Understanding it wasn't your role on the vessel, did you ever find a discrepancy, a safety discrepancy?

WIT: The only discrepancy I found first hand was the expired water in the life boat. We did a life boat inventory as part of one of my work lists with the Third Mate and me and my colleague discovered the water.

CAPT Neubauer: Was the item corrected?

WIT: It was. They didn't have any spares on board. This was in our transit, I forget whether it was in our transit to Puerto Rico or back to Jacksonville, but once we arrived in port they received all new water and fully stocked both life boats.

CAPT Neubauer: So it was completed as soon as possible by the company?

WIT: It was.

CAPT Neubauer: Did you see any general safety issues during your walk through and raise any flags for you?

WIT: I didn't notice anything. I was trying to remove basically my inspector hat and go on board as solely a trainee. There was nothing that stuck out to me that was an obvious safety concern.

CAPT Neubauer: Sometimes crew members will confide in the Coast Guard. Did anyone tell you anything in confidence about safety issues they'd seen before, water being shipped on vessel on the second deck, anything like that?

WIT: No.

CAPT Neubauer: We've heard prior testimony that the Captain could be characterized as a stateroom Captain. Based on what you observed, or what you may have heard on board what – do you agree with that characterization?

WIT: I do

CAPT Neubauer: Can you give me a reason why you would agree?

WIT: In the time that I was on board, I mean Captain Davidson was very enthusiastic about his job. He was always willing to train us and told us a bunch of stories about his time on the El Faro and his past career, but I didn't observe him in a hands on role. He would come up to the bridge periodically, hang out or spend some time up there then go back to his office. But I didn't see him participating in a lot of other functions. So to me it seemed as though he was more hands off.

CAPT Neubauer: Now I want to make it clear that you don't have a lot of shipboard experience.

WIT: Correct.

CAPT Neubauer: So that's a limited assessment. Was that voiced to you from any other crew members, especially like officers?

WIT: It was to a certain point. Some crew members stated that he didn't really sympathize with like how much they worked and all their duties. And said that he spent a lot of time in his room or in the breakroom.

CAPT Neubauer: How many crew members?

WIT: I would say at least 2 to 3 crew members said it.

CAPT Neubauer: Just to clarify, 2 to 3?

WIT: Yes, sir.

CAPT Neubauer: And were they officers or deck crew or engineers?

WIT: They were officers, deck.

CAPT Neubauer: 2 to 3 deck officers?

WIT: Yes.

CAPT Neubauer: Do you remember the ranks or the – was it – can you tell me which deck officers?

WIT: I know that Danielle said it. And I'm pretty sure that the Chief Mate at the time said it.

CAPT Neubauer: Was that Chief Mate Schultz?

WIT: No it was not. It was Ray Thompson.

CAPT Neubauer: Can you say that name again please?

WIT: Raymond Thompson.

CAPT Neubauer: At this time I'm going to ask the parties in interest if they have any questions. Tote?

Tote Inc: No questions, sir.

CAPT Neubauer: ABS?

ABS: No questions.

CAPT Neubauer: Mrs. Davidson?

Ms. Davidson: I have a few questions. Good afternoon Lieutenant.

WIT: Good afternoon.

Ms. Davidson: My name is William Bennett and I represent Teresa Davidson, the widow of Captain Davidson. Captain was approachable, correct?

WIT: He was.

Ms. Davidson: And he was vested in making sure that you got your job done, correct?

WIT: He was.

Ms. Davidson: And what time was breakfast that you would attend?

WIT: Breakfast started at 0800, Captain asked that we show up at 0815.

Ms. Davidson: What time did you regularly get up?

WIT: 07.

CAPT Neubauer: Mr. Bennett could you get a little closer to the microphone?

Ms. Davidson: Did you ever speak to Boatswain Kenny Walker?

WIT: I did.

Ms. Davidson: Is it fair to say that the Captain spent a lot of time on the bridge?

WIT: He spent a fair amount of time on the bridge.

Ms. Davidson: Is it fair to say he was always aware of what was going on?

WIT: He was.

Ms. Davidson: And he was very invested in bridge team management, correct?

WIT: Yes.

Ms. Davidson: He was very meticulous, correct?

WIT: Very.

Ms. Davidson: 100 percent prepared and thoughtful?

WIT: Yes.

Ms. Davidson: And the Captain had – would it be fair say that the Captain had intensive interactions with pilots and docking pilots?

WIT: He did.

Ms. Davidson: Is it fair to say that the crew respected him?

WIT: Yes.

Ms. Davidson: And they – it's fair to say that they were comfortable with his judgment?

WIT: Yes.

Ms. Davidson: No further questions.

CAPT Neubauer: Did the Captain ever personally train you at all while you while you on, Lieutenant Beisner?

WIT: He did. He would answer a lot of the questions. He would stop on the bridge and see if there was anything we wanted to go over. And he would pull us into his stateroom and kind of go through our PQS and just kind of talk to us about overall navigation. He had both myself and my petty officer fill out a notice of arrival for training. So he was very invested in helping us. He also made sure that we were with him during, at least the two mooring and transiting out of the river so we could see the interaction between him and the pilots and everything that went into that operation.

CAPT Neubauer: What was your opinion of his interaction with external parties like the pilots?

WIT: He was very professional.

CAPT Neubauer: No sign of any dissention between those parties?

WIT: No.

CAPT Neubauer: Commander Denning? Mr. Fawcett.

Mr. Fawcett: Lieutenant Beisner I know it wasn't part of your job but you participated in a life boat inspection where drinking water was expired. Was that both boats or one boat?

WIT: It was both boats.

Mr. Fawcett: What provisions were made for, immediate provisions were made for letting the crew know of alternate arrangements or additional water to brought aboard in the event that you did have to abandon ship?

WIT: I don't believe alternate provisions were made or that the crew was informed. I did ask the Third Mate if he had talked to the Captain about it and he said yes and that they were placing an order. But I don't remember, or I didn't hear of them talking about any alternate arrangements.

Mr. Fawcett: Thank you very much.

CAPT Neubauer: Can you give a time estimate of how long it was between when you identified the water and when you pulled into port?

WIT: I believe it was 2 days.

CAPT Neubauer: Are there any final question for Lieutenant Beisner at this time? Lieutenant Beisner you are now released as a witness at this Marine Board of Investigation. Thank you for your testimony and cooperation. If I later determine this board needs additional information from you I will contact you through your counsel. If you have any questions about this investigation you may contact the Marine Board Recorder, Lieutenant Commander Damian Yemma. And I want to personally thank you, I understand that testimony was probably difficult to provide. At this time do any parties in interest have any concerns with the testimony provided by Lieutenant Beisner?

Tote Inc: No, sir.

Ms. Davidson: No, sir. And thank you for your service.

WIT: Thank you.

ABS: No, sir.

CAPT Neubauer: The hearing is now recessed and we'll reconvene at 2:10.

The hearing recessed at 1355, 25 February 2016

The hearing was called to order at 1410, 25 February 2016

CAPT Neubauer: The hearing is now back in session. We will now hear testimony from Mr. Luke Laakso, Walashek boiler inspector. Mr. Laakso please come forward to the witness table and Lieutenant Commander Yemma will administer your oath and ask you some preliminary questions.

LCDR Yemma: Sir, please raise your right hand. A false statement given to an agency of the United States is punishable by a fine and or imprisonment under 18 United States Code section 1001. Knowing this do you solemnly swear that the testimony you're about to give will be the truth, the whole truth and nothing but the truth, so help you God?

WIT: I do.

LCDR Yemma: Thank you, please be seated. Sir, could you please start by stating your full name and spelling your last name for the record?

WIT: My full name is Luke Laakso, last name is L-A-A-K-S-O.

CAPT Neubauer: Sir, if you could pull that microphone a little closer.

LCDR Yemma: And what is your current employment and position?

WIT: I'm a superintendent for Walashek industrial and marine.

LCDR Yemma: And what are some of your responsibilities in that position?

WIT: Estimating and running job, inspections.

LCDR Yemma: And can you describe for the board some of your prior relevant work experience please?

WIT: Can you repeat that please?

LCDR Yemma: Can you describe for the board some of your prior relevant work experience?

WIT: I've worked for Walashek for about 14 years. Starting out with them just as a regular boiler maker. I've worked mine up to lead man, and superintendent.

LCDR Yemma: And what is your highest level of education completed?

WIT: High school.

LCDR Yemma: And do you hold any licenses or professional certificates?

WIT: No.

LCDR Yemma: Lieutenant Venturella will have questions for you.

LCDR Venturella: Good afternoon Mr. Laakso.

WIT: Good afternoon.

LCDR Venturella: This interview will be broken into two separate lines of questioning. The first line of questioning will include the condition of the main propulsion boilers and the rest of the steam propulsion plant aboard El Faro. The second line of questioning will include questions related to your experiences and observations while underway aboard El Faro.

WIT: Okay.

LCDR Venturella: So we're going to start with the first line of questioning now which will be the conditions of the boilers in the plant. Sir, what training or certification have you had that authorizes or qualifies you to conduct boiler inspections?

WIT: No specific training. The company I've worked for we've done boiler repairs for longer than I've been working for them. So over that time just repairs on multiple projects and then just working my way up in the trade.

LCDR Venturella: Sir, do you recall the manufacturer and type of the steam propulsion boilers aboard El Faro?

WIT: It's B&W boiler, Babcock and Wilcox.

LCDR Venturella: Sir, I know you mentioned that you don't have training, but would you be classified by Babcock and Wilcox as a qualified boiler inspector?

WIT: No.

LCDR Venturella: How often were you contracted to inspect the boilers aboard El Faro?

WIT: I really couldn't answer that question. A couple of times I went on board to inspect them, but I couldn't give you an exact number. Once or – or two or three times I think I've been on board to actually do an inspection. I've been board to do repairs before, but just a couple of times to do inspections.

LCDR Venturella: Can you clarify the couple of times that you've been board for inspections, within what time period? Would it be within a year, within two years?

WIT: No. Before this one it was probably 5 years prior to that that I was actually doing an inspection on.

LCDR Venturella: Can you comment on whether your company has other representatives come to the El Faro for the boilers more often?

WIT: I can't comment on that, I don't know.

LCDR Venturella: Who was your usual Tote Services point of contact for these jobs aboard El Faro?

WIT: I didn't have a point of contact. It would – they would go through our main office and then they would call me and direct me to go aboard the ship and speak with the Chief Engineer once I got aboard.

LCDR Venturella: Where and when was the last time you boarded El Faro for boiler inspections?

WIT: September 11th through the 14th of 2015.

LCDR Venturella: Why in this case are you aware that Tote Services hired you to inspect the boiler and, just for the last time can you comment on why you went out this past time?

WIT: There was a brief yard period they were going to go into and they wanted us to look over their boilers to see if there was anything that we could do in that time to do routine maintenance on the boilers.

LCDR Venturella: What were you specifically asked to inspect? Were you asked to inspect a specific boiler, both boilers and what within the boiler were the concerns?

WIT: I was asked to inspect the starboard boiler. I know that they wanted to do both, but at that time I was only there to do the starboard boiler. And they were going to open it up and I was going to look at the conditions of the inside of the firebox, super heater

cavity, just to see if there was anything that was out of the norm or anything that we could write up that could be addressed during the yard period.

LCDR Venturella: Sir, did you ride the ship from San Juan to Jacksonville for the purpose of the boiler inspection?

WIT: That's correct.

LCDR Venturella: Who was the Chief Engineer when you went aboard?

WIT: His first name is Rich, I don't know what his last name is.

LCDR Venturella: Sir, I would like to draw your attention to Exhibit 11 for the next set of questions.

LCDR Yemma: They're in the binder.

WIT: Okay.

LCDR Venturella: Okay. Exhibit 11 is an email from Chief Engineer James Robinson to Port Engineer Tim Neeson dated July 29th, 2015 expressing concern about the main propulsion boiler condition. Have you seen this email before?

WIT: I have not.

LCDR Venturella: Just take a moment to read it over, not out loud but just to yourself and let me know when you've read it. Sir, were you aware that these boiler issues were in place for at least a month and a half prior to your visit to the vessel?

WIT: I was originally scheduled to come out to the vessel in late August to do an inspection. But it got postponed. So I was aware that they wanted to look inside the boilers, but I wasn't aware of what they exactly wanted us to look at until I arrived on the ship.

LCDR Venturella: When you got on board El Faro did the Chief Engineer mention any observations to you about the last time the crew had inspected and cleaned the port boiler on July 11th or the starboard boiler on July 25th and what you see in this email?

WIT: Yeah. The Chief mentioned it, he wanted me to look at some of the refactory. He had some concerns, but he didn't deal with that as much. He wanted to get a repair company's eyes on it to see what their concerns were.

LCDR Venturella: So did the Chief Engineer specifically mention the concerns that the brick work in both boilers was bowing the front water wall tubes out?

WIT: He didn't use those terms. He just said he wanted me to look at the brick work once I crawl inside the boiler to take a look at it.

LCDR Venturella: Did he mention anything specifically about the problems with the burner throats or the floor brick or the fire stops?

WIT: Yeah. When I got on board the starboard boiler, or when I got on board the ship he mentioned to look at the deck and look at the burner throats. He did mention the fire stops to me, but it's something usually that I'll check when I crawl aboard.

LCDR Venturella: Sir, did the Chief seem concerned that the boiler condition was unsafe?

WIT: He didn't seem concerned, he just said that it's something that he would like to have addressed. But it didn't seem to be any real concern, but it's hard to you know judge that just by a conversation.

LCDR Venturella: Did the Chief also express any concern that Tote Services may not support timely repairs?

WIT: No.

LCDR Venturella: Speaking of your trip underway on the El Faro, when was the starboard boiler secured and cooled down so that you could enter the boiler?

WIT: Uh I couldn't tell you when it was secured. I knew that by 4 a.m. the next morning it would be cool enough for me to get in. So there's probably a 12 hour period where they would secure it to allow it to cool down. I can't give you an exact time, I don't know when they actually secured the boiler.

LCDR Venturella: Was this before or after the vessel got underway?

WIT: Well I woke up at 4 O'clock in the morning and the vessel was already underway and the boiler was secured, so.

LCDR Venturella: Sir, were your inspection activities on board limited to the starboard boiler? And why was the starboard boiler chosen instead of the port boiler? Do you have any recollection?

WIT: No I don't know why they chose one boiler over the other.

LCDR Venturella: Based on the email you saw a minute ago, would you say that it's – it would have been expected that the port boiler would have been chosen?

WIT: Uh I really have no comment on that. I don't know. They discuss both boilers in there.

LCDR Venturella: Sir, in your opinion do you have an opinion on why the inspections would take place underway instead of shore side?

WIT: Uh maybe time constraints, but I don't know. I'm not sure.

LCDR Venturella: So what was the general scope of your inspection of the starboard boiler?

WIT: Just once they secured it and it was opened up I was to crawl into the boiler, fire box first and inspect the brick work, see if there was anything that was really out of the norm. I take pictures and then record anything in the report that I found that needed to be addressed during the yard period.

CAPT Neubauer: Sir, I have a follow up question from before. Have you ever done underway boiler inspection on any other vessel?

WIT: I couldn't give you date, I've been on the, I apologize, but the El Yunque, the El Morro, the El Faro kind of all run in hand so I couldn't tell you exactly. I've done an inspection on the El Yunque recently.

CAPT Neubauer: Was that an underway boiler inspection?

WIT: Yes.

CAPT Neubauer: Can you give an approximate time frame?

WIT: I believe it was in January, I would have to look. I don't have it in front of me right now.

CAPT Neubauer: Do you do boiler inspections on any other company vessels besides Tote?

WIT: I haven't.

CAPT Neubauer: Thank you.

LCDR Venturella: Sir, I would like to draw you attention now to Exhibit 12. Exhibit 12 is an inspection report delivered to Sea Star Lines providing findings from an inspection on the starboard boiler during El Faro's voyage from San Juan, Puerto Rico to Jacksonville, Florida between September 11th and 14th, 2015. Does this appear to be a copy of your survey reports?

WIT: Yes it does.

LCDR Venturella: Can you provide a brief summary of your findings to include your recommendations for repair?

WIT: The burner throats were starting to deteriorate. The brick work on the floor was starting to build up and buckle a little bit. There was some issues with the fire stops. The front wall was, there was deterioration on the front wall. There was a gap between the tubes and the front wall and the tubes were starting to bend out.

LCDR Venturella: I'm going to have you read some select portions of this survey report aloud.

WIT: Okay.

LCDR Venturella: There's a portion on page 1 regarding the burner throats, can you go ahead and read that?

WIT: Burner throats have deteriorated severely especially between number 1 and number 3 burners. Cracking and loss of material plus heavy buildup of the fuel is present on all three throats.

LCDR Venturella: Sir, can you read the portion about the fire stops?

WIT: The forward and rear fire stops are starting to fall apart towards the top at each stop and holes are starting to show. The left stop when facing the screen tubes has pushed the first screen tube away from the wall so that it touches the next screen tube.

LCDR Venturella: Can you read the portion on page 1 about the front wall?

WIT: The front wall on the starboard boiler is in very bad shape. The brick wall in spots has pushed itself against the tubes and in turn pushes the tubes out causing them to bow in towards the fire box. Other parts of the wall have begun to deteriorate and

there's now a 3 to 4 inch gap between the wall and the tubes. As the tubes are pushed out the tubes on the burner throats have begun to show signs of flame impediment.

LCDR Venturella: Thank you. Now can you go to page 3 now? There's a paragraph on page 3 that starts with after discussions with the Chief Engineer, First Assistant, and Second Assistant, can you read that paragraph?

WIT: After discussions with Chief, First Assistant and Second Assistant it can be assumed that the port fire box, port boiler fire box is in the same if not worse condition than the starboard boiler. All three have the said the front wall brick and tubes are in very bad shape.

LCDR Venturella: Sir, please read aloud paragraph 1 of your recommendations on page 3.

WIT: It is highly recommended that the front wall tubes as well as the brick including burner throats be renewed on both boilers. The brick is moving due to soot build up behind them as a result can cause casing fires as well as damage to tubes to the point of failure. The deterioration of the brick can also cause inner casing to fail from lack of heat resistant brick and insullation in front of it.

LCDR Venturella: There's also a paragraph on page 3 about the port economizer. Can you read that?

WIT: The port economizer has had jumpers installed in 7 places showing signs that the upper bank is starting to fail. It is recommended that the upper economizer bank be re-tubed.

LCDR Venturella: Sir, based on these sections read and your summary of the report overall, when did you recommend repairs be conducted to minimize probability of

failures to the boiler including casing fires, inner casing failure, upper economizer bank failure or others? And would you consider any of these repairs an immediate need?

WIT: I didn't recommend a time frame. I did the report and turned over the report to my supervisor who then in turn discussed it with the Port Engineer for Tote. As far as immediate time frame I knew what we had in the yard period, what time we had, and so we wanted to address what we could in that amount of time.

LCDR Venturella: When did you understand that the vessel would have a yard period coming up?

WIT: When did I learn about it is what you're asking?

LCDR Venturella: You mentioned that you understood that these items would be addressed in the yard period coming up.

WIT: Right.

LCDR Venturella: When did you think that that would be?

WIT: I believe it was sometime in November.

CAPT Neubauer: Sir, just to clarify, when you did the survey did you understand that the vessel was going into a yard period?

WIT: Yes.

CAPT Neubauer: So really did you make this report as a pre-yard period inspection?

WIT: Yes.

CAPT Neubauer: Thank you.

LCDR Venturella: You used a lot of words like severe deterioration and very bad shape. Are those words you normally use during survey reports?

WIT: Yes if it's something that I saw was in bad condition I would notate it.

LCDR Venturella: And was something in this type of condition, does your experience say it's best to fix it right away?

WIT: I would recommend that it be fixed right away, but that's only a recommendation of us being contractors. It's really up to the ship's owner at that point.

LCDR Venturella: Did you express any concern with deferring any of these items to the yard period?

WIT: I didn't express it with anyone on board the vessel. I said that during the yard period we could do burner throats, there's a certain amount of time, but we, you know we don't want to get into something that we're not going to be able to finish before the yard period ends.

LCDR Venturella: Were there any specifically noted boiler maintenance issues that you or the company recommended be deferred beyond the shipyard period, either verbally or in writing?

WIT: Not at – I don't remember verbally saying that something had to be done after the yard period, another time of year. That could have been discussed between Tote Maritime and my upper management, but I was never part of that.

LCDR Venturella: Were you a part of any discussions to defer anything beyond the shipyard period?

WIT: No.

LCDR Venturella: With the conditions of the boilers as you surveyed them on El Faro, have resulted in reduction of the vessel's propulsion capabilities or maneuverability or its electrical power through the least reduced efficiency or heat production of the

burners, the feed water not being preheated as well or as designed or poor condition of the furnace refractory.

WIT: Most of that I can't answer those questions about feed water and stuff like that. Or anything past the boilers as far as propulsion. That's not anything we ever deal with.

LCDR Venturella: As a boiler expert though, can you comment on the steam production of the boiler? Would the steam production have been able to keep up with the normal maximum steam for this particular type of boiler?

WIT: I wouldn't see why it wouldn't. There's two boilers and they can run on one while one is down. So I don't see why they would have an issue.

LCDR Venturella: So none of the issues you noted you believe would have an effect of reducing the efficiency of the boiler?

WIT: Efficiency, yeah. There was plugs in the gas passes. If the burner throats weren't – were starting to deteriorate then they weren't directing the fire appropriately it would affect efficiency. Misunderstood what you had asked.

LCDR Venturella: So is it fair to say if the efficiency of the boiler is reduced then it's not as effective as designed in full power trials?

WIT: I suppose that's fair to say.

LCDR Venturella: Were there any other concerns because of age of the boiler?

WIT: No.

LCDR Venturella: In summary in a short concise answer, how would you describe the overall condition of the boilers?

WIT: There's – there was some work that needed to be done. I didn't feel unsafe around those boilers, but there was definitely some work that needed to be done maintenance wise with regards to refractory and tubes.

LCDR Venturella: Sir, I would like to draw your attention now to Exhibit 106.

WIT: Okay.

LCDR Venturella: Exhibit 106 is a September 24th, 2015 Walashek industrial and marine incorporated estimate for repairs to both boilers planned for completion in late November in Portland, Oregon or Seattle, Washington area. Sir, did you or someone else at Walashek develop this estimate after the survey you conducted on the boilers on El Faro?

WIT: Someone else at Walashek did this, it wasn't me.

LCDR Venturella: Have you seen this estimate before?

WIT: Yes I have.

LCDR Venturella: Would you know if there were any other estimates provided for the boilers on El Faro as a result of your boiler survey?

WIT: No.

LCDR Venturella: When you say no, sir, does that mean there were not any other estimates?

WIT: I don't know of any others.

LCDR Venturella: You don't know. Okay. Please read aloud the description of the recommended repairs on this estimate.

WIT: Burner throats both boilers, remove slag from firehouse decks, clear gas passes.

LCDR Venturella: Sir, can you comment on why this estimate doesn't cover all the recommended repairs from your survey?

WIT: I can't comment on that. I don't know why. That's what – maybe it was discussed during the amount of time, but since I didn't put it together I can't comment on it.

CAPT Neubauer: Sir, did you say that a supervisor in the office that was directly communicating with a Tote engineer on this issue?

WIT: That's correct.

CAPT Neubauer: Can you name that individual please?

WIT: James Dow [sic].

CAPT Neubauer: Thank you. Lieutenant Commander Venturella.

LCDR Venturella: Sir, when did you anticipate the rest of the recommended repairs from your survey report would be conducted on these boilers?

WIT: Uh I really can't answer that. Either I'm not sure when another yard period or layup was to begin at the time.

LCDR Venturella: In your experience would it be – with your experience on other ships of this sort, with steam propulsion and based on the condition you saw, what you saw was also reflected in July under examinations internally and to the company.

WIT: Right.

LCDR Venturella: Would it be normal to leave these type of repairs outstanding past November from July?

WIT: I – can you – I'm not really sure how I'm supposed to phrase this. Would it be normal for us?

LCDR Venturella: Would it be your normally recommended path to allow these type of repairs to wait from July until months past November.

CAPT Neubauer: I want to clarify though that you wouldn't be the authority on how long it would be. In your professional opinion would it be prudent to let that time lapse before repairs were made?

WIT: Well I would say no. I would like us to do the repairs right away. But in my professional opinion it could lapse a couple of months I'm sure, it wouldn't have been a big deal.

CAPT Neubauer: When you say lapse a couple of months, from your inspection time?

WIT: Yeah. It's hard for me to really make that assessment you know. I could recommend that the repairs be made, I would like them to be made during a certain time, you know yard period, but if there's no time, it's really not my decision.

CAPT Neubauer: Is there a protocol that you observe when you find an inherently unsafe inspection result? Like if you found an immediate threat to life's safety what would you do?

WIT: Well if something like that was to occur I would probably speak with the Chief Engineer on board if I thought, but I never saw anything like that.

CAPT Neubauer: Thank you.

LCDR Venturella: At any point during this process of your survey and the follow up by your company, was American Bureau of Shipping involved or the Coast Guard?

WIT: I can't answer that, I don't know.

LCDR Venturella: Is Walashek capable of performing the other recommended repairs such as re-tubing of front wall tubes, re-tubing on the upper economizer bank, brick

work on the front wall and furnace deck and repairs to the super heater, repairs to the leaking expansion joint upper flange, have any of those – are those things that you can conduct with your company?

WIT: Yes.

LCDR Venturella: Do you believe it's possible this additional work could have been quoted by another party, or does Walashek usually work with Tote on boiler repairs?

WIT: No, they could have been quoted from another party too.

LCDR Venturella: Were any boiler tubes, brick or other boiler components ordered through Walashek for the El Faro additional to this estimate?

WIT: I don't know.

LCDR Venturella: Are you aware of the typical lead time to supply tubes for the boilers on the El Faro if you had to order them?

WIT: I'm not aware of the lead time.

LCDR Venturella: From your time underway are you aware if there were any significant steam leaks within the boilers or the vessel, and what I mean by significant was that it was a concern to the engineers or it was causing a loss of condensate so that the evaporators were having a hard time keeping up?

WIT: I wasn't aware of that.

LCDR Venturella: Are you aware if there were any steam leaks to the main steam piping from the main steam stop valve of both boilers to the entry into the high pressure turbine?

WIT: No.

LCDR Venturella: Are you aware of any casualties of boilers of experience in the recent past?

WIT: No.

LCDR Venturella: Did the Chief Engineer discuss any problems he had been having with machinery in the steam plant other than the boilers?

WIT: No.

LCDR Venturella: Can you give us your perception of the competency of the personnel in the engineering department on board the El Faro?

WIT: I can only just off observations and only really the officers, they're all pretty competent. But that's just an observation of mine.

LCDR Venturella: Did you see anything that you would consider out of the ordinary in the engine room?

WIT: No.

LCDR Venturella: What was the general condition of the engine room in terms of cleanliness and maintenance of the equipment?

WIT: As far as the maintenance of the equipment throughout I really wasn't looking at that, but the over cleanliness of the engine room and up keep it was in good condition.

LCDR Venturella: Are you aware of any trends of this type of steam plant that would be a cause for concern?

WIT: No.

LCDR Venturella: Did you see any temporary systems in the engine room such as temporary pump installation to provide lube oil to the turbines?

WIT: No.

LCDR Venturella: Does Walashek have a relationship with Babcock and Wilcox in terms of making sure that you provide qualified Babcock and Wilcox inspectors?

WIT: No.

LCDR Venturella: Or maintenance officials?

WIT: No.

LCDR Venturella: Are you aware of any caveat in the Babcock and Wilcox boiler maintenance manuals that require a qualified inspector or a repair technician?

WIT: No.

LCDR Venturella: That's all I have for this line of questions Captain.

CAPT Neubauer: Thank you. I just have a couple follow on questions sir. Did you ever get the feel that the ship's crew were doing any repairs to the boiler?

WIT: No. I know that they would do, after I was done they water washed the inside of the fire box. But it was only something I think they would do when they would shut down a boiler for routine maintenance in burners. But other than that, no.

CAPT Neubauer: So more preventative maintenance, issues like that, sir?

WIT: Correct.

CAPT Neubauer: Can you comment on the quality of the temporary repairs that you noticed, the jumpers? Was it quality work?

WIT: Yeah, I mean it's a tough situation. It's hot and it's dirty up there, but the jumpers were put in like they were supposed to be.

CAPT Neubauer: You would say it was done by a professional?

WIT: It was done by someone who knew what they were doing.

CAPT Neubauer: In your opinion?

WIT: Yes in my opinion.

CAPT Neubauer: Yes, sir. Commander Denning do you have any questions?

CDR Denning: No, sir, no follow ups.

CAPT Neubauer: Mr. Young.

Mr. Young: Good afternoon Mr. Laakso thank you for your time today.

WIT: Yes.

Mr. Young: Just a few questions about the condition of the boiler that you inspected. Did you say also you inspected the boiler aboard El Yunque in the recent?

WIT: Well there was some brick work on the deck that was starting to give them a problem so we were asked to come in and do some work.

Mr. Young: How would you compare the condition of the boiler from El Yunque to El Faro?

WIT: The inside of the El Yunque boiler was in, as far as the burner throats were in better condition.

Mr. Young: What about the condition of the tubes?

WIT: The condition of the tubes were in better condition.

Mr. Young: How would you classify the condition of the El Faro boiler for a 40 year old boiler? Is that normal wear and tear or was it something you would classify as in worse condition than normal?

WIT: No, normal wear and tear.

Mr. Young: So the condition inside the fire box of the El Faro boiler was that somewhat expected in your professional opinion?

WIT: Yeah.

Mr. Young: What are the consequences of having bowed out water wall tubes?

WIT: It doesn't support the wall as well.

Mr. Young: And what about the consequence of having deteriorated burner throats?

WIT: It doesn't allow for the gas past to flow into the fire box as well. It can, I guess the efficiency of the fuel consumption you know may be different, but I really can't comment on how much different. I don't deal with that.

Mr. Young: Have you ever inspected any other Babcock and Wilcox boilers of this generation?

WIT: Yeah, you know the El Faro, the El Yunque when they were with Tote, and they were the Great Land or Northern Lights.

Mr. Young: This may be a tough question because of the time frame, but did you notice a severe deterioration from the last inspection of El Faro to this one?

WIT: I really can't answer that.

Mr. Young: Was your inspection limited to the fire box on El Faro?

WIT: And super heater cavity as well.

Mr. Young: And was there anything noted in that cavity?

WIT: It was dog bones that helps keeps the gas passes aligned. And just looking at the refractory on and the deck and the walls to see if there was anything out of the ordinary.

Mr. Young: And while the boiler was secured and opened for your entry, was there any maintenance being performed during that time on the boiler?

WIT: Not to my recollection.

Mr. Young: And was your company slated to do any work in the shipyard on that boiler for El Faro?

WIT: We gave an estimate for prices, but it's really up to the ship's owner who they're going to use to do any work if any is done.

Mr. Young: And you are – how are you able to provide qualified workers to do any welding on a propulsion boiler?

WIT: Our welders are ABS certified to weld on high pressure systems.

Mr. Young: And has Walashek performed any welding projects or repairs to any of the boilers on El Faro?

WIT: Yes.

Mr. Young: And was that work done by ABS qualified welders?

WIT: That's correct.

Mr. Young: That's all I have, thank you.

CAPT Neubauer: Mr. Roth-Roffy.

Mr. Roth-Roffy: Thank you Captain. Good afternoon, sir.

WIT: Good afternoon.

Mr. Roth-Roffy: Tom Roth-Roffy, NTSB. Sir, could you discuss your qualifications of the boiler inspector?

WIT: I'm not a boiler inspector. I work for Walashek industrial and marine. I'm a superintendent. I've done boiler repairs for a while, 2012, or 2002 is when I started with Walashek. I worked for a company called Frazier boiler before that. So I've done repairs on boilers for a good amount of time.

Mr. Roth-Roffy: And have you had any training in inspection of marine boilers?

WIT: No.

Mr. Roth-Roffy: Are you familiar with the organization called the national board of boiler and pressure vessel inspectors?

WIT: I am.

Mr. Roth-Roffy: Do you have any certifications from that organization?

WIT: No.

Mr. Roth-Roffy: Sir, is your work normally involved with marine boilers? Do you also do shore side boilers?

WIT: It's mostly marine boilers.

Mr. Roth-Roffy: You also do shore side boilers?

WIT: Yeah, but small, swimming pools and stuff like that. No power plants.

Mr. Roth-Roffy: You've discussed the inspection of fire size and super heater cavity, have you also done waterside inspections of the boilers?

WIT: As far as on the El Faro or in general?

Mr. Roth-Roffy: Let's start with the El Faro and El Yunque.

WIT: I haven't done any waterside inspections on those ships. I've been in the water sides, but I've never done any inspections.

Mr. Roth-Roffy: What about other companies or other ships, have you done water side inspections?

WIT: No we usually, well that would be to the ship owner, ABS would do the inspections.

Mr. Roth-Roffy: Are you familiar with the re-tubing history of these boilers?

WIT: I don't have dates. I've been a part of them, but I do not have dates for those.

Mr. Roth-Roffy: Can you tell me approximately you know, how long, what extent re-tubing is done?

WIT: I think within the last, you know I really can't answer that because I don't have dates in front of me, so I don't want to – and I could be talking about another ship too. So I don't have that in front of me right now. I know that is has been done, but.

Mr. Roth-Roffy: Would that be complete re-tubing the generator banks?

WIT: No.

Mr. Roth-Roffy: Which tubes?

WIT: Super heaters, economizers. There was a generating bank re-tube but I'm not sure if it was the El Faro or the El Yunque.

Mr. Roth-Roffy: Sir, do you know who in the Jacksonville area is qualified to do waterside inspections?

WIT: No.

Mr. Roth-Roffy: Does your company do water tube jetting and cleaning?

WIT: No. Any of that we would subcontract out if they asked us to do that.

Mr. Roth-Roffy: Your report mentions dog bones, could you briefly describe what a dog bone is?

WIT: It's a piece of stainless steel that will be placed in between a flat and the super heater tubes so that they don't knock together, but also so that fuel doesn't build up and create a blockage in the gas pass. It allows the gasses to flow through the super heater tubes properly. Keeps them from moving around inside there. Keeps them secure.

Mr. Roth-Roffy: And your report is listed as the having, I'm sorry, the September 11th through 14 voyage inspection report, can you give us an idea of the duration of your inspection like starboard boiler?

WIT: It started at 4 in the morning and I was done by lunch.

Mr. Roth-Roffy: And would that include the port, or is that additional time to do the port?

WIT: No I didn't do any inspection on the port boiler during the voyage. It was only the starboard boiler.

Mr. Roth-Roffy: But you did do some external.

WIT: Just walking around.

Mr. Roth-Roffy: Sir, is the deterioration found at the burner throats, is that typical boiler deterioration or was there some unusual condition causing that?

WIT: No that's typical for the throats to deteriorate.

Mr. Roth-Roffy: Thank you, sir. That's all I have. Captain.

CAPT Neubauer: Do the parties in interest have any questions? Tote?

Tote Inc: Just a couple questions Captain.

CAPT Neubauer: Yes, sir.

Tote Inc: This is Robert Birthisel on behalf of Tote. Mr. Laakso most of what's in your report that you discussed the deterioration and the negative things that were cited by the Coast Guard in the initial questions, those are efficiency items aren't they?

WIT: Yes they're efficiency items.

Tote Inc: And there was nothing that you noted that when you were in that boiler that indicated that there were any unsafe conditions, correct?

WIT: No.

Tote Inc: Had you noticed an unsafe condition you indicated that you would have reported it to the Chief Engineer.

WIT: I would have discussed it with the Chief Engineer.

Tote Inc: Did you have any such discussion with the Chief Engineer?

WIT: No.

Tote Inc: Thank you, no further questions.

CAPT Neubauer: ABS?

ABS: No more questions.

CAPT Neubauer: Mrs. Davidson?

Ms. Davidson: No questions.

CAPT Neubauer: Sir, I think we have another line of questions. Would you like to take a break at this time?

WIT: No I'm okay.

CAPT Neubauer: Commander Denning. Mr. Fawcett.

Mr. Fawcett: No, sir.

CAPT Neubauer: Mr. Venturella.

LCDR Venturella: Just a couple more follow ups on the last line of questioning before we start the next line. You mentioned that you have witnessed some re-tubing either on El Faro or on another vessel. Can you clarify was it El Faro re-tubed?

WIT: Yeah there was some work done on the El Faro but I can't give dates. I don't, you know have that off the top of my head.

LCDR Venturella: During that re-tubing that you witnessed are you aware at any point if American Bureau of Shipping was called out to survey those repairs?

WIT: Uh yes. They're always involved with it.

LCDR Venturella: Post re-tubing did you note whether a hydrostatic test was performed of any repairs?

WIT: Yeah, that's always performed.

LCDR Venturella: What pressure would you have hydroed a tube to, and give me what tubes that were repaired if you know?

WIT: We would go to 125 percent of operating pressure on tubes that we repaired which would have been for instance super heater tubes.

LCDR Venturella: Sir, also if I was to contact Babcock and Wilcox, the boiler manufacturer and asked for a qualified inspector or maintenance technician do you know if they would refer me to Walashek?

WIT: I don't have any clue.

LCDR Venturella: Okay. The next line of question is a little shorter. It's about your underway experience aboard El Faro.

WIT: Okay.

CAPT Neubauer: Mr. Venturella, before you start I just have one follow up question on the other thread. Sir, did you ever see a Coast Guard inspector overseeing your work you were doing?

WIT: During any of the yard periods?

CAPT Neubauer: Yes, sir, yard periods or even inspections. Did you ever come across a Coast Guard inspector?

WIT: Yes.

CAPT Neubauer: What was the frequency in the yard periods?

WIT: It was when we would be testing at the end of the yard period.

CAPT Neubauer: Every time you did testing?

WIT: Not that I'm aware of.

CAPT Neubauer: Can you give me like a frequency that you would – that a Coast Guard would attend along with ABS?

WIT: Not – it wouldn't be 100 percent of the time. But generally it's just ABS. It's – in the past, you know years ago when I first started I would see that more frequently, but not as much now.

CAPT Neubauer: And I want to explore that a little further, sir. You say much more, or I think you said just more. Can you give percentages like lets go back when you first started.

WIT: When I first started I would also see Coast Guard inspector with an ABS inspection when we do hydrostatic testing.

CAPT Neubauer: And what year was that, sir?

WIT: When I first started was 1994.

CAPT Neubauer: Can you advance to when to when you started Walashek then, sir.

WIT: 2002 it would be less frequent. Generally at the end of the jobs ABS would be there and numerous times Coast Guard would defer.

CAPT Neubauer: So it went from 100 percent in 1994 ----

WIT: That I remember.

CAPT Neubauer: Approximately, to what would be the percentage in ----

WIT: Maybe 25 percent of the time. But it's just a guess.

CAPT Neubauer: Yes, sir. I understand. And what would you say in 2015 around the time you did this – the last inspection on the El Faro?

WIT: There wasn't any Coast Guard around when I was doing the inspection on the El Faro last year.

CAPT Neubauer: I mean that time frame generally. Is it still about 25 percent or would you say less even?

WIT: I would even say less. I think after this incident I've seen the Coast Guard on vessels more often. But before this incident it had been less frequent.

CAPT Neubauer: Can you give an estimate, it's like below 25 percent, or?

WIT: Yeah, below 25 percent.

CAPT Neubauer: Thank you. Lieutenant Commander Venturella we'll start the new line of questioning.

LCDR Venturella: Okay. The next line of questioning is about your underway experience while you were aboard El Faro. It's separate from the main propulsion plant or boilers. You were down in the engine room I'm sure a lot of your time there. Can you discuss – was it ever uncomfortably hot in the engine room to the point where you noticed watertight doors had to be left open?

WIT: Uh I wouldn't say that it was uncomfortably hot, but it's – I've become more accustom to the heat in an engine room when it's been online, so it wasn't anything that – I mean it was warm, but it wasn't anything to the point where they were leaving doors open.

LCDR Venturella: So you saw no doors open from the engine room to the holds?

WIT: Only when people were passing through doing work.

LCDR Venturella: Sir, did you receive familiarization and indoctrination prior to getting underway and what was the scope of that indoctrination if you had it?

WIT: I sat with the Captain when I came on board, filled out the information for next of kin and discussed where I was supposed to be for life boat, what would happen in case of an emergency, how to don the emergency suit if I needed to.

LCDR Venturella: Did you participate in any drills while you were underway?

WIT: No.

LCDR Venturella: Were you instructed where to muster?

WIT: I was, but at this time I don't remember exactly where that was.

CAPT Neubauer: Did you actually go to the muster station?

WIT: No.

CAPT Neubauer: Physically?

WIT: No.

CAPT Neubauer: Do you remember not knowing where the muster station would be when you – where you should go?

WIT: When I was briefed where I should go I knew where I was supposed to go.

CAPT Neubauer: Thank you.

LCDR Venturella: Sir, were you given any specific instruction on what survival gear to show up at the muster point with?

WIT: No.

LCDR Venturella: Were you issued an emergency or survival suit?

WIT: There was one in the room that I was given when I boarded the vessel.

LCDR Venturella: Were you given any instruction on the donning of the survival suits and did they have you put it on?

WIT: No. I didn't put it on.

LCDR Venturella: Did you notice if any of the immersion suits were located in a secure consolidated location like locked up or were they distributed throughout in people's staterooms?

WIT: I couldn't comment on any of the other staterooms. The room that I was given was in the, when I walked into the door in the closet that's unlocked. It was – the suit was there.

LCDR Venturella: Did anything else stand out from your underway experience that you want to tell us about?

WIT: No. Boring.

LCDR Venturella: Okay. That's all I have for this line of questioning Captain.

CAPT Neubauer: Mr. Young.

Mr. Young: Thank you. Just one question. During your time aboard at any time was there any work being done in, on or around the boiler by any Polish laborers?

WIT: Not around the boilers. The Polish laborers were on deck, below the main deck, I'm not quite sure what deck that would be called.

Mr. Young: They weren't working on the boilers?

WIT: No I didn't see them down in the engine room at any time.

Mr. Young: Thank you.

CAPT Neubauer: Mr. Roth-Roffy.

Mr. Roth-Roffy: No questions, sir.

CAPT Neubauer: Go to the parties in interest. Tote?

Tote Inc: None, thank you for coming.

CAPT Neubauer: ABS?

ABS: No questions, sir.

CAPT Neubauer: And Mrs. Davidson?

Ms. Davidson: No questions Captain.

CAPT Neubauer: Sir, this may be hard to asses and if you don't know how to asses it, just let me know. Could you get a feel for the morale of the engine room crew? I mean did they seem happy to be working in general?

WIT: Just the people that I dealt with were jovial, they were in good spirits.

CAPT Neubauer: Did you ever hear any complaints about the bridge crew from the engineers?

WIT: No. Generally I don't see the bridge crew, but the engineers, you know, I'm a subcontractor so anything that's in house with people they generally keep to themselves if there was any. But I didn't hear anything. I didn't hear any complaints in any way.

CAPT Neubauer: Did you see any issues on board that were not related to the engineering that you would consider any kind of safety hazard?

WIT: No.

CAPT Neubauer: Are there any final questions for Mr. Laakso? Mr. Laakso, you are now released as a witness at this Marine Board of Investigation. Thank you for your testimony and cooperation. If I later determine this board needs additional information from you I will contact you through your counsel. If you have any questions about this investigation you may contact the Marine Board Recorder, Lieutenant Commander

Damian Yemma. At this time do any of the parties in interest have any concerns with the testimony provided by Mr. Laakso?

Tote Inc: None from Tote.

Ms. Davidson: No, sir.

ABS: No, sir.

CAPT Neubauer: At this time the hearing is adjourned and we'll reconvene at 9 O'clock tomorrow morning.

The hearing adjourned at 1502, 25 February 2016.