GOLDEN RAY Hearing

14 September 2020

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CAPT Welborn: Good morning it is now 10:30 local on the 14th of September here in Brunswick, Georgia. This hearing is now in session. Good morning ladies and gentlemen I'm Captain Blake Welborn I'm a leading investigating officer for this Coast Guard Seventh District Formal Investigation and the Presiding Officer over these proceedings. The Seventh Coast Guard District Commander has convened this formal investigation 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 capsizing of the Motor Vessel GOLDEN RAY that occurred on September 8th 2019 while transiting the St. Simons Sound in Brunswick, Georgia. If you're attending these proceedings remotely you will notice as you look around the room that we are observing all local, Federal, State, and National guidelines regarding the global. Each member of the Board in the room has been briefed and advised on social distancing and or face covering procedures and protocols. In accordance with the International Maritime Organization Casualty Investigation Code, this investigation was mutually agreed upon to be a joint effort between the GOLDEN RAY's Flag State, the Republic of the Marshall Islands, the U.S. National Transportation Safety Board also known as NTSB and the Korean Maritime Safety Tribunal also known as KMST and the U.S. Coast Guard. The purpose of this investigation is to determine the cause of this incident so that similar casualties may be prevented in the future. The members of this formal investigation have been tasked with investigating this matter, engaging technical matter, subject

matter experts from the Investigations National Center of Expertise, the Marine Safety Center, the NTSB and other appropriate agencies and individuals. We will determine the following: The cause of the marine casualty; the adequacy of response resources including rescue, salvage and pollution; the adequacy of the aids to navigation; and other waterways factors; the effectiveness of the safety management system; whether there is evidence that any failure of material, either physical or design was involved or contributed to the casualty so that proper recommendations for the prevention of the recurrence of similar casualties can be made. Whether there is any evidence that any act of misconduct, in attention to duty, negligence or willful violence of the law on the part of any person holding a Coast Guard credential contributed to the casualty so that the proper proceedings against the credential of such person may be recommended. 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. And whether the present regulatory framework as applied to this and similar vessels provides and adequate measure of safety.

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Upon the conclusion of this investigation the members are tasked with submitting our completed investigation report to the Coast Guard Seventh District Commander with the collected evidence, established facts, conclusions and recommendations. I note that many of you are attending today's session either in person or via video and more are watching via the Live Stream feed. We do appreciate you joining us today. Other than myself the members of this investigation including Mr. Lee Willett and Lieutenant Commander who is also serving as our Recorder. The Legal Counsel to the Board is Lieutenant.

- members have previously sworn to faithfully perform their duties without partiality. Upon
- completion of the investigation, we will submit our report of findings, conclusions, and
- 3 recommendations to the 7th Coast Guard District Commander.
- The NTSB is also charged with the responsibility of determining the cause or probable
- 5 cause of a major casualty under the provisions of Section 304(a)(1)(E) of the
- 6 Independent Safety Board Act of 1974. For this reason, the NTSB representative will
- 7 participate fully in these hearings and may make recommendations about the scope of
- 8 the hearings, may call and examine witnesses, and may submit or request additional
- 9 evidence. The representatives for the Republic of the Marshall Islands and KMST, as
- substantially interested states, may additionally participate fully in this hearing.
- At this time, I will ask that the representatives for the NTSB and the Republic of the
- Marshall Islands state their appearances. The person representing NTSB, Captain
- 13 Flaherty please state your name and spell your last name for the record and identify
- 14 your title now.
- 15 **NTSB:** David Flaherty, F-L-A-H-E-R-T-Y.
- 16 **CAPT WELBORN:** And Captain your position title is?
- 17 **NTSB:** Investigator in Charge for the investigation into the GOLDEN Ray incident.
- 18 **CAPT WELBORN:** Thank you. The individual representing the Republic of the
- Marshall Islands, please state your appearance in the same format.
- 20 **Republic of the Marshall Islands:** Thomas Bremer, B-R-E-M-E-R, Deputy
- Commissioner of Maritime Affairs, Republic of the Marshall Islands Maritime
- 22 Administrator.

CAPT WELBORN: Thank you Mr. Bremer. KMST representatives will not be physically appearing and have provided me a list of questions that they wish to be asked of each witness. When the time arises, I will state when I transition to the questions posed by KMST. I would like to request the cooperation of all persons present to minimize any disruptive influences on the proceedings in general and on the witnesses in particular. Witnesses are appearing before the members of this Formal Investigation to provide valuable information that will assist this investigation. We request members of the public be courteous and respectful of the hearing location during these proceedings and attend via livestream to comply with the Federal, State, and Local COVID 19 guidelines. For those of you participating via video or phone, I ask that you mute yourself until I've recognized you for your questions unless you with to make an objection. All media inquiries and comments regarding the hearing should be sent to GoldenRayPublicHearing@gmail.com. I have already briefly discussed the purpose of this investigation but I want to reiterate that the goal is to enable the prevention of similar casualties in the future, by determining, as closely as possible: The factors that caused and contributed to the incident, so that proper preventative recommendations 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 certified certificated person

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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 contributed to the casualty. This hearing will focus on the pre-accident historical events that transpired aboard the GOLDEN RAY in the period leading up to the accident on September 8, 2019. The hearing will explore the composition of the Port of Brunswick and St. Simons Sound, the pilot embarkation and debarkation procedures, the regulatory compliance record of the GOLDEN RAY, the loading and stowage process for cargo operations, the stability of the vessel, crew member duties and qualifications, and the operations of the vessel from the past, up to and including the accident voyage. The hearing will also include a review of the activities related to the initial search and rescue phase of the accident after the Coast Guard was notified. The Coast Guard has designated Parties In Interest to this investigation. In Coast Guard Marine Casualty Investigations, a party in interest is an individual, organization, or other entity that, under the existing evidence or because of his or her position, may have been responsible for or contributed to the casualty. A party in interest may also be an individual, organization or other entity having a direct interest in the investigation and demonstrating 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 themselves, to cross-examine witnesses and to have witnesses

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called on their behalf.

- 1 Witnesses who are not designated as Parties in Interest may be assisted by counsel for
- the purpose of advising them concerning their rights; however, such counsel are not
- 3 permitted to examine or cross-examine other witness or otherwise participate in this
- 4 investigation.
- I have designated the following organizations and individuals as Parties in Interest: (1)
- the Brunswick Bar Pilots Association; (2) Captain Jonathan Tennant; (3) Captain Bruce
- Fendig, (4) the Owners of the GOLDEN RAY, including Hyundai Glovis and G-Marine;
- and (5) the space charterer for the GOLDEN RAY. The lead counsel for the Brunswick
- 9 Bar Pilots Association is physically here at the hearing. The lead counsel for the Owners
- of the GOLDEN RAY, Hyundai Glovis and G-Marine is appearing by phone with a
- representative physically here at the hearing. The representative for the space charterer
- on the GOLDEN RAY has elected not to participate in this hearing and is monitoring the
- live feed of these proceedings. I will now ask that counsel announce their appearances
- on behalf of their clients. Please state your name and spell your last name for the
- 15 record. Brunswick Bar Pilots Association.
- Brunswick Bar Pilots Association: Ryan Gilsenan, G-I-L-S-E-N-A-N, for the
- 17 Brunswick Bar Pilots Association and Captain Jonathan Tennant.
- 18 **CAPT WELBORN:** Mr. Reisman and Captain Flaherty did you understand that?
- 19 **NTSB:** Actually I had trouble hearing that Captain.
- 20 **CAPT WELBORN:** Okay. Stand by one moment. Mr. Gilsenan if you would announce
- 21 yourself again please.
- 22 **Brunswick Bar Pilots Association:** Ryan Gilsenan, G-I-L-S-E-N-A-N, counsel for the
- Brunswick Bar Pilots Association and Captain Jonathan Tennant.

- 1 **CAPT WELBORN:** Thank you, sir. And the owners of the GOLDEN RAY, Hyundai
- 2 Glovis and G-Marine.
- 3 **GOLDEN RAY:** Jim Moseley, Jr., M-O-S-E-L-E-Y.
- 4 **CAPT WELBORN:** Thank you Mr. Moseley. The Recorder will place all witnesses
- 5 under oath. When testifying under oath, a witness is subject to the Federal laws and
- 6 penalties for perjury for making false statements under Title 18, United States Code,
- 7 Section 1001. Penalties included, excuse me, penalties include a fine up to \$250,000,
- 8 or imprisonment up to 5 years, and or both.
- 9 The sources of investigation into which this investigation will inquire are many and
- varied. Since the date of the casualty, the Republic of the Marshall Islands, NTSB,
- 11 KMST, and the 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 he or she has information not brought
- forward but which might be of significance, that person is urged to bring that information
- to my attention by emailing: <u>USCGGoldenRay@gmail.com</u>.
- Mr. Flaherty will now say a FEW words on behalf of the NTSB.
- 17 **NTSB:** Good morning. As the Investigator in Charge for the National Transportation
- Safety Board's investigation of this accident, the safety board is an independent Federal
- agency which under the Independent Safety Board Act of 1974 is required to determine
- the cause or the probable cause of this accident. To issue a report of the facts,
- conditions and circumstances related to it and may make recommendations to prevent
- similar accidents. The NTSB has joined this hearing to avoid duplicating the
- development of facts. Nether the less I do wish do to point out that this does not

- 1 preclude the NTSB from developing additional information separately from this 2 proceeding if that becomes necessary. At the conclusion of the hearing the NTSB will 3 analyze the facts of this accident and determine the probable cause independent from 4 the Coast Guard. At a future date a separate report of the NTSB's findings will be 5 issued which will include our official determination of the probable cause of this 6 accident. And if appropriate the safety board will issue recommendations to correct 7 safety problems discovered during this investigation. These recommendations may be 8 made in advance of the report. Thank you. 9 **CAPT WELBORN:** Thank you Captain Flaherty. Additionally we have one attorney for 10 the owners of the vessel appearing telephonically. Mr. 11 Reisman, David Reisman. Would you please introduce yourself? 12 Mr. Reisman: Thank you Captain. This is David Reisman, the last name is spelled R-13 E-I-S-M-A-N, on behalf of the owners, Hyaudi Glovis at G-Marine Service. CAPT WELBORN: Thank you Mr. Reisman. Are there any other folks on the line that I 14 15 haven't had an opportunity to -- I haven't offered to introduce themselves this morning? 16 Mr. Bremer do you have any statements before we begin? 17 Republic of the Marshall Islands: No Captain. **CAPT WELBORN:** Thank you, sir. Any other issues, with the opening, anything else 18 19 we need to discuss at this time? Okay. The local time now is 1047, we'll take a quick 20 10 minute recess and then move on to the Coast Guard Exhibit 1. The hearing now 21 stands in recess.
 - The hearing was called to order at 1057, 14 September 2020.

The hearing recessed at 1047, 14 September 2020

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- 1 **CAPT WELBORN:** Alright, the time is now 1057 local and this hearing is back in
- session. We will now present our first Coast Guard Exhibit, Exhibit 1, facts of the
- incident. The following presentation is a summary of the ship's particulars, basic facts
- 4 of the incident, photos of the ship pre-incident and animation of the incident from the
- 5 PPU. All this information was derived from the ship's documents, photos of the last flag
- state inspection and the voyage data recorder and the PPU data. Next slide. The
- 7 GOLDEN RAY ship particulars. Captain Flaherty and Mr. Reisman.
- 8 NTSB: Yes.
- 9 **Mr. Reisman:** Yes Captain, this is David Reisman.
- 10 CAPT WELBORN: I do apologize I had you on mute. I'm going to back up just a
- moment or two. We're proceeding with Coast Guard Exhibit 1 the facts of the incident.
- 12 **NTSB:** That's fine, thank you.
- 13 **CAPT WELBORN:** So I'll back up just a bit to show that the presentation is a summary of the ship's particulars, basic facts of the incident, photos of the ship pre-incident and
- animation of the incident from the PPU. This information which is derived from ship's
- documents, photos of the last flag state inspection, the voyage data recorder and the
- 17 PPU data. Slide two shows the GOLDEN RAY ship particulars, the IMO number of the
- vessel 9775816, the flag The Republic of the Marshall Islands, class Korean register of
- shipping, the owner noted as GLNV24 shipping. Operator G-Marine Service company
- limited. Diesel propulsion. 7,742 vehicles were on board the ship at the time of
- incident. The ship was built in 2017 at the Hyundai Dock in Korea. The length overall
- just under 200 meters, the beam 35.4 meters, draft 10.6 meters, it's a car carrier 71,000
- gross tons, full speed 20 knots at 77.2 RPM's and had a rotary vain hydraulic steering

system. Next slide shows a general arrangement of the ship. This image is an excerpt from the GOLDEN RAY's general arrangement plan as approved by the ship's classification society KRS. It's a car and truck carrier fitted with stern and starboard side ramps, 13 cargo decks fitted with movable ramps. Accommodations are located above the cargo decks. Navigation bridge located forward above the accommodations. A simplified version of the deck arrangement is presented in the next slide. The next slide shows a photo of the GOLDEN RAY pier side from its last flag state inspection. The next photo shows examples of vehicles loaded and how they are secured with straps to the deck on the vessel. The Port State Control and registry history, ten total Port State Control examinations have been conducted onboard the ship since 2017, no detentions or notable deficiencies exist in the record. The vessel had two prior Coast Guard Port State examinations. One in February of 2018 in San Francisco, the other in May of 2019 also in San Francisco. The GOLDEN RAY crew were properly credentialed for the positons they filled onboard the vessel and all held appropriate flag state endorsements on their licenses and or documents. The vessel was manned in compliance with the minimum safe manning certificate issued under the provision of regulation 5/14.2 of SOLAS 74 as amended by the Republic of the Marshall Islands. The ship's crew was 23 in addition to the – persons in addition to the crew were 1 including a State Pilot. The timeline of the voyage for the purposes of this investigation begin in Vera Cruz, Mexico from the 19th to 22nd of August 2019. Altamira, Mexico from the 24th to the 25th of August 2019. Freeport, Texas August 27th through the 30th, 2019. Jacksonville, Florida the 6th and 7th of September 2019, and Brunswick, Georgia the 7th and 8th of September 2019. The vessel held all required SOLAS and safety certificates

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and the certificates were valid. There were no indications that any vessel safety or communication equipment contributed to this incident. The vessel held a required SOLAS safety construction certificate and that certificate was also valid. There are no indications that vessel machinery or any other equipment contributed to this incident. National Oceanic and Atmospheric Administration chart 11506 depicts St. Simons Sound, Brunswick Harbor internal river. The black box noted in the slide indicates the area the GOLDEN RAY transited on its outbound voyage from Brunswick. The next slide represents the approximate track history of the GOLDEN RAY's outbound voyage overlaid on NOAA chart 11506. This is an approximate location and used for referential purposes only. A photo of the navigation bridge can be seen on the next slide of the GOLDEN RAY taken during the most recent Flag State inspection. The photo was taken from the port side of the vessel. This photo shows the navigation bridge of the GOLDEN RAY taken during – also during the same Flag State inspection. The aspect of this vessel is from the – the aspect of this photo is from the starboard side. Next we have an animation of the incident assembled from the VDR and the PPU. It was compiled Mr. Mark Dejesus, U.S. Coast Guard Investigations and National Center of Expertise. [Playing] can you increase the volume. At this time we're going to pause the video until we get the volume issue worked out. So it is now 1108 am, this hearing stands in recess.

The hearing recessed at 1108, 14 September 2020

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The hearing was called to order at 1111, 14 September 2020

CAPT WELBORN: Okay this is Captain Welborn again the local time is 1111 and we were able to correct our sound issue so we will go – the hearing is back in session.

- Again we are referring to the animation assembled from the VDR and PPU. [Playing
- VDR]. It's a very powerful video, thank you to Mr. Dejesus for assembling that for us.
- 3 So one minor correct the Exhibit is correct, I stated the wrong numbers. When I said
- 4 the vessel carried just over 7700 cars and trucks on board, that's the capacity of the
- 5 vessel, just over 7700. The vessel had approximately 4300 autos on board at the time
- of the incident. Are there any objections from the SIS's or the PII to Coast Guard
- 7 Exhibit 1 as it stands? The Republic of Marshall Islands?
- 8 **Republic of Marshall Islands:** No objection.
- 9 **CAPT WELBORN:** Thank you Mr. Bremer. National Transportation Safety Board?
- 10 **NTSB:** No objections.
- 11 **CAPT WELBORN:** Thank you. Do we have a representative from KMST? KMST this
- exhibit was previously shared with KMST and we received no objections at that time.
- 13 Brunswick Bar Pilot Association representation?
- 14 Brunswick Bar Pilots Association: No objection.
- 15 **CAPT WELBORN:** Thank you, sir. And ship's owner representation?
- 16 **CAPT Fendig:** No objections.
- 17 **CAPT WELBORN:** Thank you Mr. Bruce we do appreciate it. Hearing no objections
- 18 Coast Guard Exhibit 01 is entered into the record. Any other housekeeping issues we
- 19 need to attend to? The local time now is 1123. This hearing stands in recess for lunch
- until 1230 local when we will call our first witness, Captain Bruce Fendig. This session
- 21 stands in recess.
- The hearing recessed at 1123, 14 September 2020
- 23 The hearing was called to order at 1232, 14 September 2020

- 1 **CAPT Fendig:** Okay the time is now 1232 local and this hearing is back in session.
- 2 The first witness for us to call today is Captain Bruce Fendig, Pilot, Brunswick Pilots
- 3 Association. Captain Fendig please come forward. Lieutenant Commander will

- 4 swear you in.
- 5 **Recorder:** We're at the part, Mr. Fendig can you raise your right hand please. A false
- 6 statement given to an agency of the United States is punishable by fine and or
- 7 imprisonment under 18 United States Code 1001. Knowing this do you solemnly swear
- 8 that the testimony you're about to give will be the truth, the whole truth and nothing but
- 9 the truth so help you God?
- 10 **CAPT Fendig:** I do.
- 11 Recorder: Thank you very much, you may be seated. Mr. Fendig could you please
- 12 state your name and spell your last name for the record?
- 13 **CAPT Fendig:** My name is Bruce Fendig, F-E-N-D-I-G.
- **Recorder:** Are you represented by counsel? 14
- 15 CAPT Fendig: I am. Brian ----
- **Recorder:** And who is your counsel? 16
- 17 **CAPT Fendig:** Brian Gilsteen (sic).
- **Recorder:** Have you been designated as a party of interest in this case? 18
- 19 **CAPT Fendig:** Yeah I have.
- 20 **Recorder:** Do you hold any professional certificates or certifications?
- 21 **CAPT Fendig:** I do.
- 22 **Recorder:** Can you, in regards to your maritime background?

- 1 **CAPT Fendig:** Certainly. I hold a Federal Coast Guard First Class Pilot's license for
- 2 Brunswick and further in. I also hold a State of Georgia Pilot's license, no restrictions.
- Recorder: Can you describe the relationship between those licenses?
- 4 **CAPT Fendig:** Sure. Most of the vessel traffic called in to Brunswick today requires a
- 5 State Pilot to be aboard, State Pilot to be aboard. Only a small percentage of our traffic
- 6 requires U.S. license Pilot's.
- 7 **Recorder:** Can we active the microphone for the board ----
- 8 **CAPT Fendig:** Did you get the last part of the could you repeat the question please
- 9 Commander ?
- Recorder: Yes. Can you move the microphone up a little more, sir?
- 11 **CAPT Fendig:** More?
- 12 **Recorder:** Yes.
- 13 **CAPT Fendig:** How about that Commander
- Recorder: That's perfect. Do you hold, or can you describe your relationship between
- 15 your various licenses and credentials?
- 16 **CAPT Fendig:** Yes. We're dully licensed here in Brunswick. I hold a Federal Coast
- Guard license for pilotage and a State Pilot license. Most of the vessel traffic calling on
- 18 Brunswick today requires a State Pilot's license. A small percentage of the business
- calling on Brunswick today would require a U.S. License Pilot or a Federal Pilot.
- 20 **Recorder:** Did the GOLDEN RAY require a Pilot for transiting this area?
- 21 **CAPT Fendig:** Yes the GOLDEN RAY would require a State licensed Pilot.
- Recorder: Is this governed by a law or regulation?

- 1 **CAPT Fendig:** Yes. The compulsory pilotage statutes are covered both Federally and
- 2 State Law and State Regulation.
- Recorder: Can you give us a brief summary of your background and experience as a
- 4 Pilot?
- 5 **CAPT Fendig:** Yes. I've been a licensed Pilot for 30 years, a State licensed Pilot in
- Brunswick for 30 years. And I've handled quite a few vessels. I've looked up the last
- 7 10 years its around 850 vessels, movements in the last decade prior to the incident.
- 8 **Recorder:** Who is your current employer?
- 9 **CAPT Fendig:** All the Pilots in Brunswick are self-employed. We are associated
- together in order to collectively operate a Pilot operation.
- 11 **Recorder:** And what position do you hold?
- 12 **CAPT Fendig:** I'm a harbor Pilot.
- Recorder: Can you describe your duties and responsibilities in that position?
- 14 **CAPT Fendig:** Yes. As a State licensed Pilot and a Federal licensed Pilot we've sworn
- an oath to serve vessels. So every vessel that calls for a Pilot and request a Pilot it's a
- licensed Pilot's duty to respond here in Brunswick. And we take turns. We have a
- 17 rotation, we take turns to fulfill that commitment.
- 18 **Recorder:** Have you received any training for this position?
- 19 **CAPT Fendig:** Yes every Pilot in Brunswick has served an apprenticeship. And the
- apprenticeship I served was a little different than the last four Pilots that served, but we
- all have served an apprenticeship here. All the Pilots always serve in an
- 22 apprenticeship.

- **Recorder:** I will now transfer the question over to Captain Welborn. Thank you Mr.
- 2 Fendig.
- **CAPT WELBORN:** Just a moment Captain. Sorry Captain I've lost your questions. So
- 4 if you could give me just a moment.
- **CAPT Fendig:** Yes, sir. No problem.
- **CAPT WELBORN:** We have to pause for the train anyway [train in background]. So
- the witness in consult with his counsel have prepared a list of answers to questions so
- 8 I'm going to allow the free form and allow the witness to go ahead and testify and bring
- 9 those things to bare.

CAPT Fendig: Yes, sir, thank you. So I have some prepared remarks about training in Brunswick. And licensing begins in Brunswick with need. And when an opening is forecasted either by retirement or growth our primary oversight body, the Brunswick Pilot Commission will announce and advertise an opening for a new apprentice Pilot. An apprentice selection is done upon a major base system of factors set forth in State Regulation. The perfect candidate would have 100 points. Points are gained in four equal categories, education, previous maritime experience, commissioner interview and an assessment by the Pilot's Association for Pilot potential. A candidate must have a minimum of 30 points in order to qualify for the interview portion selection. The minimum apprenticeship duration after selection is 3 years in accordance with State Law and Regulation as well as the terms set forth in our U.S. Coast Guard approved training program. Since Brunswick Pilots must be intimately familiar with local waters, navigational peculiarities, local regulations as well as know how to handle different types and sizes of ships and be able to conduct themselves on ships with bridge teams

from all over the world. An intensive on the job training program is vital. In Brunswick, around the U.S. and internationally time has shown that the skills required of a Pilot are best developed then mastered through locality specific hands on apprentice training. We operate a program to do just that and again it's approved by the Coast Guard and jointly approved by the Coast Guard and our local Pilot Commission here in Brunswick. This training program consists of learning tasks that are both academic based and field based, field based tasks under the tutelage of existing State licensed Pilots. It is a thorough and detailed program designed to take an apprentice Pilot all the way through licensure and develop what we believe as an optimal training for State licensed Pilot. One of the last things on the agenda of a training of an apprentice is the application for a First Class Pilot's license. And this is done after completion of the apprentice training program. It should be noted that a Pilot trained under this system has learned the profession by not less than three methods, observation, coaching and cueing and finally observed solo. After completion of the apprenticeship commissioners of pilotage will then authorize a, what we call in Brunswick, a short branch license for newly licensed Pilots and it would limit the size of the vessel and their license would be restricted by draft [sirens in background]. **CAPT WELBORN:** I'm sorry Captain the microphones are very sensitive. **CAPT Fendig:** Yes, sir, no problem. A newly licensed Pilot would handle limited tonnage type vessels which would be restricted by draft, beam and length overall. For a number of years they would work their way up through progressively larger licenses

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until they became a full branch license or unlimited license with no restrictions. At every

level of licensure there's both a verbal and written testing by the Pilot Commissioners.

- And I'm proud to tell you that Pilot Tennant is a product of this system. And I would also
- let you know that over the last few years several times these schedule of licensure or
- the steps in the branch of the license have been amended to reflect the current fleet
- 4 calling to Brunswick today. That's all I have for licensing if you have any questions
- 5 about that.

- 6 **CAPT WELBORN:** Okay.
- 7 **Counsel:** There's are other topics to discuss in this presentation.
- 8 **CAPT WELBORN:** Right.
- 9 **Counsel:** But if you want license questions or should he continue and you come back.
- 10 **CAPT WELBORN:** Yeah please continue.
- 11 **Counsel:** Okay go ahead.
- 12 **CAPT Fendig:** So in my notes here I have a few notes about the unique navigation 13 features here in Brunswick. The Port of Brunswick is largely a natural harbor. The 14 Army Corps of Engineers has made many improvements to the Federal project over the 15 years. Specific to the area of the incident it lies between the barrier Islands of St. 16 Simons and Chapel Island. This area is formed by the confluence of rivers that meet in 17 the sound and scourer out a very large natural channel or gorge that greatly exceeds the Federally authorized project in that area. Vessel traffic has used this area, this 18 19 natural deep water area for navigation since Colonial days. The area is naturally deep 20 and has a sandy bottom and there's navigation room in the sound for around 1000 feet
 - wide in many areas adjacent to the wreck. A few notes I have on ATON verification.
- ATON verification is, I'm speaking to post storm ATON verification. ATON verification
- post storm is done pursuant to the requirement to the Captain of the Port Savannah and

- it needs to be inspected. And generally the Pilots will ride, a Pilot, a State licensed
- 2 Brunswick Pilot will ride on the station boat, the RBM with Coast Guard personnel and
- 3 ATON Coast Guard personnel. On this particular occasion the reopening process is a
- 4 little slower so we took our own boat and checked it. But many times we go on a Coast
- 5 Guard if necessary.
- 6 **CAPT WELBORN:** Captain if I may. When you say this time?
- 7 **CAPT Fendig:** I'm sorry, post Dorian.
- 8 **CAPT WELBORN:** Post Dorian.
- 9 **CAPT Fendig:** Post Dorian, thank you. Now in general every Pilot is always checking
- the ATONs on every passage. And any discrepancy would be reported directly to the
- 11 Coast Guard. This specific reporting duty in our organization is assigned to the
- apprentice Pilot or on occasion the short branch Pilot. If an unsafe condition such as a
- buoy were to drift into the channel and endanger vessel traffic on rare occasions we
- have used the Pilot boat to pull it off to the side. And of course we would call the Coast
- Guard immediately after safe passage of the vessel. That's my notes on ATON.
- 16 **CAPT WELBORN:** Okay.
- 17 **CAPT Fendig:** Verification. I have a few notes on tide influences. There are many
- sources available for this. The average tidal lift in this port is around 7 feet. We
- frequently use this tidal lift to maneuver a vessel, to move a vessel. Most row-row
- vessels do not require much tidal lift on account of shallower drafts due to the nature of
- the cargo. We try to maintain a one mil one meter under keel clearance or around 10
- percent of the draft. That's what we try to maintain. And of course every licensed Pilot
- can require more or delay a sailing if in his judgement it would be safer to do so. Or it

- could require less. Certain ships don't take as much. But generally we try to keep one
- 2 meter as a minimum. With the large tidal range experienced in Brunswick it is not
- 3 unusual to have an extra foot or under certain conditions lose a foot from the predicted
- 4 values. And then finally I have a few notes with regards to PPU.
- 5 **CAPT WELBORN:** Okay. This is your last section Captain?
- 6 **CAPT Fendig:** Yes, sir.
- 7 **CAPT WELBORN:** Okay.
- 8 **CAPT Fendig:** A portable pilot unit what we call a PPU is a tool that most Pilots in
- 9 Brunswick use today and for that matter most of our colleagues across the Nation use a
- 10 PPU. This device is really just another tool in the Harbor Pilot's arsenal to safely handle
- vessels. It's no different than ----
- 12 **CAPT WELBORN:** Captain, just a moment [train whistle in background]. Please.
- 13 **CAPT Fendig:** Yes, sir. This PPU is not different than any other traditional tool
- available for navigators such as a radar, phantom meter. The software that we use in
- our association is CIQ. It's quite handy and extremely intuitive for the user. The
- hardware in our association is treble board. And our system can actually act as a
- standalone unit with less accuracy in an emergency. I find this tool very accurate and
- very helpful. It should be noted that this tool, in my opinion, works optimally when the
- 19 Pilot has broad experience and training without the use of PPUs. And then later adds
- the PPU to the more traditional Pilotage skills. Fortunately Pilot Tennant and all the
- 21 Brunswick Pilots have both sets of skills. It is clearly a tool that will continue to be a
- large part for the future of the Pilots. That is the end of my prepared remarks.

- 1 **CAPT WELBORN:** Great thank you very much Captain Fendig I do appreciate it. We
- would also like to maintain a copy of that or obtain a copy of that as part of your official
- 3 transcript and testimony today.
- 4 **CAPT Fendig:** May I send you a clean copy?
- 5 **CAPT WELBORN:** Please.
- 6 **CAPT Fendig:** Yes, sir. I'll take care of it.
- 7 **CAPT WELBORN:** Okay. Do we need to change out the Captain's microphone?
- 8 Okay. We're going to swap the mic out to see if we get something that picks up a little
- 9 bit better.
- 10 [Testing microphone]
- 11 **CAPT WELBORN:** It's not picking up. Okay. So Captain we asked you hear today to
- testify about your knowledge of the Port of Brunswick and the navigational features
- surrounding the rivers and the confluence that you described. So what I would like to
- do first of all is introduce Coast Guard Exhibit 2 and let's see if you can tell us what that
- 15 is.
- 16 **CAPT Fendig:** That's the NOAA chart for the Port of Brunswick.
- 17 **CAPT WELBORN:** Okay. Standby one, we're going to put it up where our live stream
- folks can see it. Okay. Captain I'm sorry, can you tell us again what that is?
- 19 CAPT Fendig: Yes, sir. That's the NOAA chart number 11506.
- 20 **CAPT WELBORN:** Okay. And what's this particular chart used for? What does it
- 21 depict?
- 22 **CAPT Fendig:** This is the overall chart of the Harbor with the Federal showing the
- Federal improvements or the official channel, the authorized channel.

- 1 **CAPT WELBORN:** Understood.
- 2 **CAPT Fendig:** It shows it shows the sea buoy would be out here slightly off the
- channel, the Pilot would pick up a ship at sea, bring the ship up through the channel
- between the Islands and up into the Port of Brunswick. It would go here and downtown
- 5 there's some terminals here.
- 6 **CAPT WELBORN:** Understood. Let the record show that Captain Fendig used the
- 7 laser pointer to outline the Federal Channel, the sea buoy to the docking stations. Any
- 8 other particular things about this particular chart Captain?
- 9 **CAPT Fendig:** Yes, sir. The incident site is here between the Islands in the Plantation
- 10 Creek area, Plantation Creek range area, there.
- 11 **CAPT WELBORN:** Again let the record show that Captain Fendig used the laser
- pointer to identify the area in the, what was the waterway again Captain?
- 13 **CAPT Fendig:** It sits it sits in the widener of Plantation Creek range and the widener
- of Chapel Creek range.
- 15 **CAPT WELBORN:** Does that particular widener have a notation or number?
- 16 **CAPT Fendig:** It has a new number that I've learned. It's widener number 11.
- 17 **CAPT WELBORN:** Okay.
- 18 **CAPT Fendig:** In that area right there.
- 19 **CAPT WELBORN:** Roger. Okay, thank you Captain I appreciate that. So we talked
- about the widener. The widener number 11 is it, what's the purpose of that widener
- 21 Captain?
- 22 **CAPT Fendig:** It's a bend widener and there may be others better prepared to speak
- on the exact how they're developed, but the Army has criteria that they use to develop

- thin widener s for certain turns and that's developed that way. So it's used for
- 2 navigation. It's used to make a widener area so the vessel could swing around between
- the two channels, the two narrow channels. It gives a widener area for the swept
- 4 passage.

- **CAPT WELBORN:** Understood. So it's an area utilized for the turning a vessel from
- one portion of the waterway to another.
- **CAPT Fendig:** It is and we use it frequently.
- **CAPT WELBORN:** Okay, understood, thank you. Thank you. Captain how are
- 9 passing arrangements made in and out of the Port of Brunswick?
 - CAPT Fendig: A variety of way. Normally when we have a conjunction move we call it, and we like to pass we like to pass again in this area between the Islands that's the 1000 foot wide area that I described earlier. We like to pass in that zone and with modern technology we'll normally make a cell phone call so the guy at the dock will normally call the inbound guy to make sure the inbound Pilot to make sure he's aboard and everything's okay. Once we know that that's okay then the outbound Pilot will be prepared to let go lines and they can start in. It's ironically the area between the Island is halfway between the dock and the sea buoy approximately. And so it provides a convenient area to pass large ocean going vessels. The whole port is a two way traffic port under normal circumstances. But the Pilots believe it's safer to pass in the area of the gorge I spoke of rather than passing in narrow channels with high profile vessels. It's not to say we wouldn't pass two smaller vessels in the channels. But we prefer to pass between the Islands. It's a logical spot. If you have an emergency you can stop and anchor there. Another benefit of using that area to pass in. Back to your question

- 1 how passing arrangement are made. It could also be made by VHF in the event cell
- 2 phone coverage was weak and of course whistle signals or sight signals, either one,
- whistle or light signals.
- 4 **CAPT WELBORN:** So Captain often the passing arrangement are made prior to
- 5 getting the vessel underway from the dock or once it meets a sea buoy.
- 6 **CAPT Fendig:** It can be. Sometimes it's done, again by VHF. But normally and we
- 7 normally pass port to port unless there's something weird going on. If there's something
- weird is happening you know they're going to the Pilots are going to talk. And so if
- 9 there's something like this is happening they're going to talk and that could be changed
- on the fly. But normally we pass port to port though.
- 11 **CAPT WELBORN:** And that communication you referenced is conducted how? On
- what means?
- 13 **CAPT Fendig:** Again normally we talk by cell phone. And then if that doesn't work or
- that didn't happen then it could be by VHF radio on 12 or, channel 12 or channel 13 we
- would make passing arrangements.
- 16 **CAPT WELBORN:** Understood, okay. Captain you referenced the waterway between
- the Islands. You said that's primarily where the passing takes place. What is the name
- of that particular ----
- 19 **CAPT Fendig:** The St. Simons Sound.
- 20 **CAPT WELBORN:** St. Simons Sound, thank you. And you also referenced that that
- area is approximately in the middle between the sea buoy and the dock. What dock are
- we referring to here?

- 1 **CAPT Fendig:** Well approximately between, really all of the docks for practical
- 2 purposes. There's a small amount of difference between the upper most East River
- dock and the upper most horizontal dock in linear mileage. And so the Pilots with the
- 4 outbound and inbound would talk by VHF or phone, but in today's world we have PPU
- 5 which tells us exactly where we're going to meet. And so each Pilot would be adjusting
- their speed to meet there in the sound because we believe it's the safest area. So
- 7 speed would be adjusted.
- 8 **CAPT WELBORN:** Understood. But that doesn't take precedent over verbal
- 9 communications.
- 10 **CAPT Fendig:** No. Correct, that's correct, yes.
- 11 **CAPT WELBORN:** Okay. So Captain what's the maximum depth of ships transiting
- 12 outbound from Colonel's Island terminal?
- 13 **CAPT Fendig:** Well there was previously a bulk terminal there and we loaded grain
- 14 vessels there. And those vessels were quite deep sailing. We have handled in excess
- of 36 feet at high water. That's not representative of the fleet today at Colonel's Island
- because the grain terminal has been discontinued and it's all row-row vessels. Most
- 17 row-row vessels are not that deep. There are a few, but most are not.
- 18 **CAPT WELBORN:** So Captain you said you liked to maintain one meter under keel
- clearance, what would that measurement be then? What would the maximum depth of
- draft depth of a vessel departing from Colonel Island to maintain that one meter under
- 21 keel clearance?
- 22 **CAPT Fendig:** Oh well that would vary with the stage of the tide of course. We have
- 23 nearly a two meter rise of tide.

- 1 **CAPT WELBORN:** Right.
- 2 **CAPT Fendig:** So ----
- 3 **CAPT WELBORN:** So can you give me a foot range?
- 4 **CAPT Fendig:** So we would sail a vessel I believe if my memory serves me correct at
- 5 that time we would sail 8.9 meters of drafts at any time. So they could theoretically go
- at low tide. So if it was greater than 8.9 we would have to add some tidal lift to it.
- 7 **CAPT WELBORN:** Understood. So you would have to wait for tidal cycling.
- 8 **CAPT Fendig:** We would have to wait for the tide, correct.
- 9 **CAPT WELBORN:** Understood. Okay. And Captain can you identify where Colonel's
- 10 Island terminal is on the chart?
- 11 **CAPT Fendig:** Colonel's Island terminal is here, this area here. It's on the Western
- side of the city of Brunswick. It's State Port Authority terminal. It's quite large in nature.
- 13 It's bisected by U.S. Highway 17.
- 14 **CAPT WELBORN:** Let the record show that the Captain identified where Colonel
- 15 Island is on the chart. Captain when you board a vessel to Pilot it, and I should step
- back and make a point of reference, the questions that we are referring to today refer to
- all pilotage vessels, vessel's requiring Pilots. I just want to make sure the record –
- make sure we're clear. So Captain when you board a vessel to Pilot it how do you –
- how are you made aware of the maximum draft of the vessel?
- 20 **CAPT Fendig:** Several ways. Our office, we have an excellent operations manager in
- our office and Henry would be the first point. It would be the draft would be given to
- Henry days in advance by the vessel agent. And the Pilot have told Henry the 8.9
- 23 number. And so that would be the first point. And then that would get posted into our

- company's database for Pilots. And then of course when the Pilot was called for duty it
- would be posted what the vessel's draft was reported by the agent. Now if it's close
- 3 sometimes we will reach back out to the vessel to confirm the draft. And that could
- 4 easily happen on many occasions. The draft can be confirmed by VHF potentially. And
- 5 then of course the Pilot when he gets on board we have a Master Pilot exchange
- 6 whether inbound or outbound, we're going to have a Master Pilot exchange. And that's
- one of the key provisions in a Master Pilot exchange is the vessel draft.
- 8 **CAPT WELBORN:** Understood. Captain you referenced Henry. Who's Henry?
- 9 **CAPT Fendig:** I'm sorry. Henry Winn is our operations manager in our organization.
- 10 **CAPT WELBORN:** So he's your what does he operations manager?
- 11 **CAPT Fendig:** He would take in he's a dispatcher.
- 12 **CAPT WELBORN:** Dispatcher, understood.
- 13 **CAPT Fendig:** He would take the information from the vessel agent.
- 14 **CAPT WELBORN:** Okay.
- 15 **CAPT Fendig:** Originally. Post it on our database and then it would be there for Pilots
- to look at. And it might, you know some traffic is very fluid so you might be looking a
- day or two before your turn to see what's coming in to see if [in audible] have another
- opportunity to see it, to check it.
- 19 **CAPT WELBORN:** Understood. Captain I hate to ask you this. I'm getting some
- feedback from folks at the they're having trouble hearing you on the live stream.
- 21 **CAPT Fendig:** Yes, sir. So what can I do different?
- 22 **CAPT WELBORN:** Just speak a little louder if you would.
- 23 **CAPT Fendig:** Okay, yes, sir.

- **CAPT WELBORN:** Captain you said it's a database that your Pilots check, that's
- 2 correct?
- **CAPT Fendig:** Yes, sir.
- **CAPT WELBORN:** Okay. So that's remotely accessible that the Pilots can access it
- 5 only by coming in the office or externally?
- **CAPT Fendig:** Either or, yes, sir. Computer, phone or come by the office.
- **CAPT WELBORN:** Understood. Okay, alright, good. So this, you said 7 foot tidal
- 8 influence in your prepared statement, how does that impact the sailing schedule of
- 9 vessels with a 7 foot range? How can that impact sailing schedules of vessels?
- **CAPT Fendig:** Well optimally we want to have the most under the keel. And again if it
- is going to be significantly less than one meter or 10 percent, then the Pilot can delay a
- transit. That's no problem. I'm not sure I understand.
- **CAPT WELBORN:** That's okay. The key to that is I understand that the Pilot has the
- call to potentially delay or change the sailing schedule.
- **CAPT Fendig:** If it's a problem, yes, sir.
- **CAPT WELBORN:** And how does that process work?
- **CAPT Fendig:** It's pretty simple just tell the Captain we're not sailing.
- **CAPT WELBORN:** Understood.
- **CAPT Fendig:** Or we're not starting in.
- **CAPT WELBORN:** Okay.
- **CAPT Fendig:** And I would like to point out that some vessels perform remarkably
- better than others. And the Pilots here handle quite a lot of row-row vessels. And we

- have a pretty good idea of which ones do and which ones don't based on experience
- with many of the vessels in the fleet.
- 3 **CAPT WELBORN:** So if I could deviate for just a moment or two Captain. How many
- 4 Pilots are in the association?
- 5 **CAPT Fendig:** Yes, sir. There are six licensed Pilots in Brunswick today. Five full
- branch Pilots and one Pilot working his way through the branches if you will. And then
- we have one apprentice Pilot in training.
- 8 **CAPT WELBORN:** And how many on average vessels do each Pilot does each Pilot
- 9 handle?
- 10 **CAPT Fendig:** It's not that many. A big month for a Pilot would be 10 vessels or 20
- movements a month. Just not that many.
- 12 **CAPT WELBORN:** So when you say 20 movements that would be one vessel in, same
- vessel out.
- 14 **CAPT Fendig:** Yes, sir. And typically in this port the Pilot who brings it in typically
- takes it out.
- 16 **CAPT WELBORN:** Understood. Okay so 10 vessels, 5 Pilots, 50 port calls a month.
- 17 **CAPT Fendig:** Roughly.
- 18 **CAPT WELBORN:** Roughly.
- 19 **CAPT Fendig:** Yes, sir.
- 20 **CAPT WELBORN:** Okay.
- 21 **CAPT Fendig:** It's, like a lot of things in life it goes up and it comes down.
- 22 **CAPT WELBORN:** Understood, sir. Captain as you report on board a vessel what
- information are you provided from the ship?

CAPT Fendig: Well again we normally get on board and have the Master Pilot exchange exchange. And we go through a number of things by way of the Master Pilot exchange verbally. And then normally the Mate on watch would bring the duty Pilot the ship's particulars and the Pilot card for review. But I would like to point out to you there's so much information on that Pilot card some of them are 8 or 10 pages. It would take 30 minutes to properly evaluate, it's an overload of information. The main criteria we need are the draft and the length and the beam and the bow thruster, horse power and if it's working or not. That's the main four things we need to know.

- **CAPT WELBORN:** Any information about the material condition or the limitations, operations of the ship?
- **CAPT Fendig:** Occasionally. And I would say it is the exception not the rule.

Occasionally a Master will ask you to not use the engine going in a stern going over a certain speed, that might be something he would ask you. Or it could be on the Pilot card. I would say 1 in a 100, maybe 1 in a couple of a hundred, just speculating. But it's a small percentage. I might not see it for a couple years, or you might see it once a year. But there will be a notation on the Pilot of something unusual characteristic of the vessel.

CAPT WELBORN: Understood. So Captain we're getting a lot of feedback from some of our folks on the line in the live feed that are still having trouble hearing. So at this time it is, I have 1:12 local. So I would like to take just a quick 10 minute recess for us to see if we can't access the audible situation and what's going on. I do apologize for those folks who are on the live stream. We're doing our best to put this thing together.

So again we're going off the record at 1:12. This hearing stand adjourned.

- 1 The hearing recessed at 1:12, 14 September 2020
- The hearing was called to order at 1:22 14 September 2020
- 3 **CAPT WELBORN:** Okay the local time is 1:22 and this hearing is back in session. We
- 4 are continuing our interview with Captain Bruce Fendig. Captain I think we changed out
- 5 your mic it should be a little bit better.
- 6 **CAPT Fendig:** Yes, sir. Can you hear me better now?
- 7 CAPT WELBORN: Excellent. I can hear you. Okay. Let's see Captain where we left
- 8 off. Captain so on a couple days before the 8th of September 2019 there was a tropical
- 9 system that moved through the area. You referenced it a moment ago.
- 10 **CAPT Fendig:** Yes, sir.
- 11 **CAPT WELBORN:** And what was that?
- 12 **CAPT Fendig:** Dorian I believe.
- 13 **CAPT WELBORN:** Hurricane Dorian, okay. Did you Pilot ships after Hurricane Dorian
- came through but before the GOLDEN RAY came through on the 8th?
- 15 **CAPT Fendig:** Yes, sir. I did check my records in case that question came up and we
- handled 12 vessels prior to GOLDEN RAY.
- 17 **CAPT WELBORN:** Okay.
- 18 **CAPT Fendig:** Some significantly deeper than GOLDEN RAY's draft.
- 19 **CAPT WELBORN:** Okay, good point. Were there any navigational issues noted after
- the passage of the hurricane? Any changes to the port?
- 21 **CAPT Fendig:** No, sir. The State Pilot went to check the Aid to Navigation reported no
- damage. So as far as I know all the Aids to Navigation were working.

1 **CAPT WELBORN:** Can you tell me how, you said a little bit earlier you described how 2 that system works. Can you tell me how that work? So a Pilot went out? 3 **CAPT Fendig:** Yes, sir. Again in this case we used our boat. But sometimes we ride 4 on a Coast Guard boat with Coast Guard personnel. But in this case we used our boat 5 because the storm really wasn't that significant for us in the way of hurricanes. And so 6 we sent our short branch Pilot and our apprentice Pilot to check the buoys and took our 7 boat because the port was closed at that period until some things could be established. 8 And we took our boat they checked all the Aids to Navigation and there were none 9 reported back damaged or off station or a problem for navigation. So no Aids to 10 Navigation were a problem. 11 **CAPT WELBORN:** Understood Captain. In your Pilot boat do you have any – do you 12 have a fathometer or echo depth sounder? Do you look at the bottom of the channel? 13 **CAPT Fendig:** Yes, sir. We have the capability to do several types of surveys. We 14 just did a casual survey looking for something significant. None were seen. We have 15 GPS as well for checking buoys and their positions. And of course have a fathometer. 16 And there were none. But in addition to that other Government agencies did survey the 17 channel before the Captain of Port Savannah allowed commercial traffic to resume. CAPT WELBORN: Understood, okay. And in that survey both subsurface and ATON 18 went from the sea buoy to where? 19 20 **CAPT Fendig:** Yes, sir. To all commercial terminals. So it includes Colonel's Island, 21 from sea buoy to Colonel's Island. And then back around to the East River and 22 everything was checked.

- **CAPT WELBORN:** Okay, understood. Thank you. Captain a couple questions about
- departing the port let's say from Colonel's Island terminal to the city linear bridge, what's
- the average time to get from the Colonel Island dock to the bridge?
- **CAPT Fendig:** After our last lines it's 15, 20 minutes.
- **CAPT WELBORN:** Okay. And then from the bridge to the widener?
- **CAPT Fendig:** It's another 15, 20 minutes.
- **CAPT WELBORN:** Okay and then from the widener to the sea buoy?
- **CAPT Fendig:** It's about 40 minutes.
- **CAPT WELBORN:** Okay so 20 from the dock to the bridge, 15 to 20. 15 to 20 from the
- 10 bridge to the widener.
- **CAPT Fendig:** Roughly, according to speed, yes, sir.
- **CAPT WELBORN:** And then approximately I'm sorry, sir.
- **CAPT Fendig:** According to the speed and of course if you fair tide you would get there
- a little quicker, and if you have an ebb tide, or if you had a deep draft you might go a
- little slower. Shallow draft you can get a little more speed.
- **CAPT WELBORN:** Understood. And then approximately 40 minutes from the widener
- to the sea buoy.
- **CAPT Fendig:** Approximately.
- **CAPT WELBORN:** Approximately. Okay, so then if we total all that up from Colonel
- 20 Island to the sea buoy?
- **CAPT Fendig:** It's a normal transit is roughly an hour and a half, roughly.
- **CAPT WELBORN:** Understood. Captain are you familiar with the what's commonly
- termed as the rules of the road?

- **CAPT Fendig:** Yes, sir.
- **CAPT WELBORN:** Navigational rules of the road, are you familiar with that?
- **CAPT Fendig:** Of course, yes, sir.
- **CAPT WELBORN:** In that document it references vessels constrained by draft.
- **CAPT Fendig:** Yes, sir.
- **CAPT WELBORN:** Are you familiar with those terms?
- **CAPT Fendig:** Yes, sir.
- **CAPT WELBORN:** Okay. So what would constitute or what would make a vessel
- 9 constrained by draft?
- **CAPT Fendig:** I'm going to talk around just a moment.
- **CAPT WELBORN:** Please go right ahead, sir.
- **CAPT Fendig:** Really most of the vessels, most all vessels we handle here are
- constrained in some way or another by draft.
- **CAPT WELBORN:** Okay.
- **CAPT Fendig:** Because you can't navigate outside the channel except in the wide area
- near the sound that I mentioned. And we do go outside the channel in that area.
- **CAPT WELBORN:** So if we break that term down in a couple of small chunks and
- pieces, constrained by draft would be a vessel that you would define as a vessel that
- 19 has what kind of draft?
- **CAPT Fendig:** Yeah. It would be deep draft vessel which most of what requires a Pilot
- is a deep draft. In my mind it's [in audible].
- **CAPT WELBORN:** No I understand. So it's a deep draft vessel.
- **CAPT Fendig:** Yes, sir.

- **CAPT WELBORN:** What else would it make it constrain a draft?
- **CAPT Fendig:** Of course the beam and the length.
- **CAPT WELBORN:** Okay.
- **CAPT Fendig:** And the maneuvering characteristics.
- **CAPT WELBORN:** Okay. So it's a larger vessel operating in a waterway that is
- 6 contained, it's not open?
- **CAPT Fendig:** That's correct.
- **CAPT WELBORN:** Okay.
- **CAPT Fendig:** Again by my way of thinking everything that we put a Pilot on is more or
- less constrained by draft.
- **CAPT WELBORN:** And technically, I don't want to put words in your mouth, if you
- disagree with what I'm saying I want you to get that out there.
- **CAPT Fendig:** I will, yes, sir.
- **CAPT WELBORN:** Okay, alright. So are there waterways within the Port of Brunswick
- that would limit the maneuverability of a deep draft vessel because of these types of
- 16 constraints?
- **CAPT Fendig:** Yes. The entire Federal projects could be limited based again the
- deepest draft of the vessel or on rare occasions if it's an odd vessel or an odd
- dimension vessel we will require high water slack or low water slack for the conditions.
- Wind would be another limiting factor.
- **CAPT WELBORN:** Okay. But you did mention there's one area within the port
- complex that vessels would not necessarily be constrained by draft.

- 1 **CAPT Fendig:** Say again. Oh in the sound, no. Well yeah, the sound area, but both
- the sound is kind of trapped. Unfortunately there's a shoal on the bar tap.
- 3 **CAPT WELBORN:** Okay.
- 4 **CAPT Fendig:** And unfortunately there's a shoal just before you get to the sound out
- 5 back. So there's a shoal on either side of the deep water.
- 6 **CAPT WELBORN:** So between the widener and the bridge would you say that is an
- 7 area that vessels could be constrained by draft?
- 8 **CAPT Fendig:** Yes.
- 9 **CAPT Fendig:** Okay. Why would they be constrained by draft? What is there a
- unique subsurface feature that makes those vessels constrained by draft?
- 11 **CAPT Fendig:** Well yes, sir. Again nearly all of the vessels that a Pilot is supplied to
- here, more or less except for the sound, more or less has to stay within the limits of the
- channel.
- 14 **CAPT WELBORN:** The channel -----
- 15 **CAPT Fendig:** Otherwise it's going to [in audible].
- 16 **CAPT WELBORN:** Okay, alright, that makes sense. So Captain how do vessels
- specifically row-rows that we're talking about like the GOLDEN RAY, how do they react
- within those constrained waterways? Is there some kind of ground interaction with the
- vessel in that constrained waterway?
- 20 **CAPT Fendig:** There can be yes. And again as I mentioned earlier some vessels
- 21 handle, some row-row vessels handle remarkably better than others. It depends on
- 22 how the ship is configured.

- **CAPT WELBORN:** Understood. Is there a term given to that interaction between a
- 2 vessel and -----
- **CAPT Fendig:** Well it could have several interactions. You could have bank cushion
- 4 which happens on occasion. You could potentially have bank suction or you could have
- 5 the third dimension squat.
- **CAPT WELBORN:** So we have three terms, bank suction, bow cushion and squat. So
- 7 can we define those a little bit more? Bank suction?
- **CAPT Fendig:** It would be when it go pulled over towards the banks, we seldom see
- 9 here. A push towards the bank.
- **CAPT WELBORN:** So the vessel is drawn toward ----
- **CAPT Fendig:** We would see more cushion in this port.
- **CAPT WELBORN:** Okay.
- **CAPT Fendig:** So they would want to sheer away from the bank.
- **CAPT WELBORN:** Okay.
- **CAPT Fendig:** So counter rudder would be used on that.
- **CAPT WELBORN:** The vessel is then pushed away from.
- **CAPT Fendig:** It could be potentially.
- **CAPT WELBORN:** Okay. And then squat would be?
- **CAPT Fendig:** It would, in a squat, and I'm not the expert on squat, but squat would be
- 20 could be negative squat down by the head or it could be caused by squat down by the
- 21 stern.
- **CAPT WELBORN:** Understood.

- **CAPT Fendig:** And different ships react differently. The same ship could react
- 2 differently on different trips.
- **CAPT WELBORN:** Yes, sir. And you've experienced these three, suction, cushion,
- 4 squat and you've experienced those within this port?
- **CAPT Fendig:** Yes, sir.
- **CAPT WELBORN:** Alright. So Captain in the waterway specifically I didn't write it
- down, I'm sorry, the name of the waterway coming into the widener 11, between the
- 8 bridge and widener 11.
- **CAPT Fendig:** Yes, sir.
- **CAPT WELBORN:** What's the name of that again?
- **CAPT Fendig:** The range just before widener 11 is Jackal Creek Range.
- **CAPT WELBORN:** Jackal Creek Range.
- **CAPT Fendig:** Jackal Island Range.
- **CAPT WELBORN:** I'm sorry, sir?
- **CAPT Fendig:** Jackal Island Range.
- **CAPT WELBORN:** Jackal Island Range.
- **CAPT Fendig:** And then the element that bisects Jackal on the other side would be
- 18 Plantation Creek.
- **CAPT WELBORN:** Plantation Creek. So Captain a vessel proceeding down Jackal
- Island Range outbound heading toward the widener if it's experiencing some of these
- effects that we talked about, the bank suction, the bow cushion the squat, is that vessel
- transited then into the widener, which you said the vessel might change it's
- characteristics or it might not experience these types of characteristics because the

- widener is a little bit deeper water. How would you expect that vessel, the
- 2 characteristics and the maneuverability, how would you expect it to change as it
- 3 transited from one into the other?
- 4 **CAPT Fendig:** So coming either way, inbound or outbound I would expect most
- 5 vessels to increase in speed as they entered in an area that's wider and deeper.
- 6 **CAPT WELBORN:** Okay.
- 7 **CAPT Fendig:** It's a phenomenon that occurs.
- 8 **CAPT WELBORN:** Anything else?
- 9 **CAPT Fendig:** I can't think of anything right now. I would be happy to revisit it the best
- 10 I can.
- 11 CAPT WELBORN: Understood Captain, I get that. So moving from that confined
- constrained type waterway into the wider the only effect that you would know of is an
- increase in speed?
- 14 **CAPT Fendig:** Well it would increase it's speed. But it could potentially change the
- type of squat.
- 16 **CAPT WELBORN:** Would those effects that we discussed, the bank cushion, bow
- suction, would those be increased or decreased?
- 18 **CAPT Fendig:** The only place I see those effects would be in the, typically see those
- 19 effects are in the shoaling areas. So we wouldn't see the cushion and suction
- 20 phenomenon in the sound typically.
- 21 **CAPT WELBORN:** Okay.

- 1 **CAPT Fendig:** We would normally see that on the bar channel or coming out from
- down below the bridge down towards the wreck site where we would normally
- 3 experience those types of things.
- 4 **CAPT WELBORN:** So you wouldn't experience those in a widener then?
- 5 **CAPT Fendig:** Not normally.
- 6 **CAPT WELBORN:** Okay. So Captain would you expect to see these effects, again
- those three that we talked about, bank suction, bow cushion and squat, how would
- speed interact with those types of reactions, vessel reactions? Would it increase them?
- 9 Would it decrease them? No change whatsoever?
- 10 **CAPT Fendig:** It's been my experience here that as we start in the channel from sea
- and we increase speed you could, at sea, you could potentially, you know it's hard to
- see from the wheelhouse, right? You don't see it. I've only observed it from other boats
- actually, other ships from the Pilot [in audible]. But you could have a little more squat as
- it picks up speed. But typically what happens in this port is you reach the under
- maintained channel, entrance channel, St. Simons outer bar. It gets narrower and
- shallower so the speed falls off the vessel and you're in the narrowness of the channel
- where you truly get constrained. And then once you cross the bar you go into the deep
- water and some ships take on a little different personality as it goes through the water.
- 19 **CAPT WELBORN:** And Captain you said across the bar, you're talking offshore now?
- 20 **CAPT Fendig:** I'm talking offshore, but the same principle applies outbound as well,
- 21 yes.
- 22 **CAPT WELBORN:** Okay.
- 23 **CAPT Fendig:** Either way, it's the same.

- **CAPT WELBORN:** So is it conceivable is it conceivable then as a vessel is moving
- 2 from that Jackal Island Range into the widener that the maneuvering characteristics of
- 3 the vessel could change?
- **CAPT Fendig:** It could, that's correct.
- **CAPT WELBORN:** That's not out of the realm of the possibility?
- **CAPT Fendig:** That's not out of possibility.
- 7 CAPT WELBORN: Okay, alright, understood. Alright Captain thank you. I appreciate
- 8 I don't have any more questions for you at this time.
- **CAPT Fendig:** Okay.
- **CAPT WELBORN:** But I would like to offer some of the other folks here some PII's to
- ask a couple of questions.
- **CAPT Fendig:** I would like to point out one other thing. Even inbound or outbound
- when they enter when a vessel typically enters into the sound because it's gotten
- more water surrounding the hull it tends to handle a little bit better.
- **CAPT WELBORN:** I'm sorry Captain could you say that again.
- **CAPT Fendig:** It tends to handle better.
- **CAPT WELBORN:** Better.
- **CAPT Fendig:** So the handling characteristics would be increased typically in the
- sound. So in the shallow water it would be less maneuverable.
- **CAPT WELBORN:** Hence the term constrained by draft.
- **CAPT Fendig:** Correct.
- **CAPT WELBORN:** Okay. So not only is the vessel constrained in its depth but it's
- potentially constrained in its maneuverability also, is that what you're saying?

- **CAPT Fendig:** That's correct, yes, sir.
- **CAPT WELBORN:** Okay. That's a great point Captain, thank you very much. So Mr.
- 3 Bremer do you have follow on questions for Captain Fendig?
- **Mr. Bremer:** Hi Captain how are you?
- **CAPT Fendig:** Fine Mr. Bremer.
- **Mr. Bremer:** Just a few following on questions. I know you mentioned a few times
- some shoaling on the outer bar in St. Simons into the bay. Do you know shallowest
- 8 point is? Or the depth of the shallowest point?
- **CAPT Fendig:** On the outer bar?
- **Mr. Bremer:** Yeah.
- **CAPT Fendig:** It was around 34 feet.
- **Mr. Bremer:** Okay.
- **CAPT Fendig:** Maybe 35.
- Mr. Bremer: And how current is that information? Is that information you got ----
- **CAPT Fendig:** I'm speaking to the time around the incident.
- Mr. Bremer: Okay. And is that from experience that what you've observed taking ships
- in and out or is that ----
- **CAPT Fendig:** Yes.
- **Mr. Bremer:** Or is that from the Army Corps.
- **CAPT Fendig:** It's from experience but it's also from the Army Corps of Engineers
- 21 provides monthly surveys. They provide quarterly surveys of the channel.
- **Mr. Bremer:** Okay.
- **CAPT Fendig:** From sea to the dock.

- 1 Mr. Bremer: Okay. And how about from Colonel Island shortly after Dorian from
- 2 Colonel Island to the sea buoy, is there any other spot in that area that's shallower in
- 3 that outer bar?
- **CAPT Fendig:** Again the Cedar handling area is typically shallower.
- **Mr. Bremer:** Okay.
- **CAPT Fendig:** It was closer to than the outer bar. But it does have shoal areas in it.
- But I mean a foot or a foot and a half at that time. I haven't it was over a year ago, I
- 8 haven't studied that closely.
- **Mr. Bremer:** No and I completely understand.
- **CAPT Fendig:** That area the shoal the bar and that will shoal first.
- Mr. Bremer: And so as far as determining a maximum draft for ships that come in and
- out of the port here it would be those two areas which would be a determining factor?
- **CAPT Fendig:** So we were using the outer bar as the controlling point.
- **Mr. Bremer:** Okay.
- **CAPT Fendig:** Because Cedar handling area, Cedar Range is deeper.
- **Mr. Bremer:** Okay.
- **CAPT Fendig:** At that time.
- **Mr. Bremer:** And that's ---
- **CAPT Fendig:** So that ----
- Mr. Bremer: And that's up to each individual Pilot to assess the draft of the ship and
- available water, tide, weather to make the determination whether the transit is safe?
- **CAPT Fendig:** It is. Each Pilot has a lot a latitude in that.

- 1 Mr. Bremer: Okay. You had mentioned earlier the unique current circumstances that
- you have in St. Simon Sound with the convergence of several rivers. Does that have
- any impact on the handling of deep draft ships? Specifically row-row's.
- 4 **CAPT Fendig:** Only at slow speeds.
- 5 **Mr. Bremer:** Okay. And what would you call slow speed?
- 6 **CAPT Fendig:** Less than 10 knots. Ten knots or less.
- 7 **Mr. Bremer:** And your normal is there a normal transit speed? Is it, depend on the
- 8 ship for a row-row?
- 9 **CAPT Fendig:** Again it's been my experience that these row-row vessels because
- they're fine hull forms, they like a little more speed. They handle better both for
- windage and for, don't come to the effects of windage and current to create leeway. A
- 12 little speed overcomes leeway in most cases.
- 13 **Mr. Bremer:** Okay. And is there any difference between a flood and ebb tide as far as
- impact to the transit, outbound transit of a row-row?
- 15 **CAPT Fendig:** Under what other parameters?
- Mr. Bremer: In your experience generally we do expect to ----
- 17 **CAPT Fendig:** Going to get to sea a lot quicker with ebb tide.
- Mr. Bremer: So in St. Simons Sound you would expect a difference in maneuvering of
- the ship based on the flood or the ebb stage of the tide.
- 20 **CAPT Fendig:** I think in the sound area within reason at decent speeds, 12, you know
- around 12, 13 knots I think you're going to overcome tidal effects.
- 22 **Mr. Bremer:** Okay.
- 23 **CAPT Fendig:** Typically.

- Mr. Bremer: The last question I have in your time as a Pilot here in Brunswick have
- 2 you ever experienced any, let's say degradation or reduction in maneuverability of a
- 3 ship as you transitioned from that Jackal Island Range into Widener 11?
- **CAPT Fendig:** For the most part that would be experienced in heavy laden bulk
- 5 carriers. Less so with the row-row's.
- **Mr. Bremer:** Okay. And laden bulk carriers what have you experienced in the past?
- **CAPT Fendig:** It was a little directional stability.
- **Mr. Bremer:** Okay.
- **CAPT Fendig:** Potentially.
- **Mr. Bremer:** Okay and you said not generally with the row-row? You don't see that as
- 11 often?
- **CAPT Fendig:** Not generally. I won't tell you it's never happened, but not generally.
- **Mr. Bremer:** Okay.
- **CAPT Fendig:** They steer pretty good most of the time.
- **Mr. Bremer:** Okay.
- **CAPT Fendig:** Again as you slow down with the wind blowing then there's more effects
- of leeway.
- **Mr. Bremer:** Okay.
- **CAPT Fendig:** And has to be dealt with.
- **Mr. Bremer:** I have no further questions Captain. Thank you very much.
- **CAPT Fendig:** Certainly.
- **CAPT WELBORN:** Thank you Mr. Bremer. Captain Flaherty are you with us?
- **NTSB:** I'm still here.

- **CAPT WELBORN:** Okay great. Do you have questions for Captain Fendig?
- **NTSB:** Yeah I have few. Captain is Brunswick Pilots implementing any new
- 3 procedures following the casualty involving the GOLDEN RAY?
- **CAPT Fendig:** I'm sorry Mr. Flaherty I'm having trouble hearing you. Have we done
- 5 what in Brunswick?
- **NTSB:** Let me try it again. Has Brunswick Pilots implemented any new procedures
- 7 following the ----
- **CAPT Fendig:** Did you say new procedures?
- **NTSB:** Yes, sir.
- **CAPT Fendig:** Well some Pilots have asked if you have stability GM before sailing.
- But other than that none, no.
- **NTSB:** What would you have done [in audible].
- **Counsel:** Can you repeat the question.
- **CAPT Fendig:** Captain Flaherty I'm having a terrible time hearing him. It's coming in
- and out, it's breaking up.
- **NTSB:** Let me try this. Can you hear me now?
- **CAPT WELBORN:** Try again Captain Flaherty.
- **NTSB:** Captain [in audible].
- **CAPT Fendig:** Yes say again.
- NTSB: As I understand it some Pilots are now [in audible] ability of the vessel
- 21 underway.
- **CAPT WELBORN:** Hey Captain Flaherty you're cutting out. I'm going to try to take you
- off of speaker phone and repeat your question to the Captain. If you can give me your

- questions then I'll give it to him. Captain Fendig, Captain Flaherty is asking you said
- that some of the Pilots are requesting stability information on the ----
- 3 **CAPT Fendig:** The only stability information that I've asked about that the only
- 4 stability information I've asked is it a safe GM.
- 5 **CAPT WELBORN:** Understood. [Repeating answer back to NTSB on phone]. Captain
- do you probe the range of GM for the vessel? Do you ask?
- 7 **CAPT Fendig:** No.
- 8 **CAPT WELBORN:** Captain do you know if the range of GM or the information
- 9 regarding the GM was asked about on the GOLDEN RAY before the incident?
- 10 **CAPT Fendig:** I'm not sure, no. And I would like to point out I've only asked that since
- we have a capsized vessel in the waterway.
- 12 **CAPT WELBORN:** Captain have you instituted at the Pilot's Association any new
- training for the current Pilots or the Pilot in training regarding stability issues on deep
- draft vessels prior to sailing?
- 15 **CAPT Fendig:** No. We believe that GM calculations exceed the scope of Pilotage.
- 16 **CAPT WELBORN:** Captain during the Master Pilot exchange before you take over a
- vessel as the Pilot what's the what are you focused on during that briefing? What
- were the key factors to you?
- 19 **CAPT Fendig:** Deep draft. Length overall if I don't already know it. Beam. Do you
- 20 have a working bow thruster and how many horse power.
- 21 **CAPT WELBORN:** Do you have a working?
- 22 **CAPT Fendig:** Bow thruster and how many horse power.
- 23 **CAPT WELBORN:** And the last criteria Captain?

- 1 **CAPT Fendig:** And do you have how much horse power on the vessel. Captain
- Welborn it's presumed by every Pilot here and probably in Nation, it's presumed that the
- 3 vessel is safe to come into my own waters before the Pilot get there. Or safe to sail
- 4 after cargo operations. That's presumed by us.
- 5 **CAPT WELBORN:** Understood. So Captain Flaherty is asking specifics about this
- 6 particular voyage. As the vessel proceeded from Jackal Island Sound.
- 7 **CAPT Fendig:** Jackal Island Range.
- 8 CAPT WELBORN: Jackal Island Range, as the vessel proceeded from Jackal Island
- 9 Range into Widener 11 the Pilot on board ordered 10 degrees rudder. Shortly
- thereafter he ordered 20 degrees rudder. Would you consider those prudent actions?
- 11 **CAPT Fendig:** Well I wasn't there. But it doesn't seem unusual. Captain Welborn ----
- 12 **CAPT WELBORN:** So Captain below the widener the area South of the pier there,
- what did you call that waterway again?
- 14 **CAPT Fendig:** Plantation Creek Range.
- 15 **CAPT WELBORN:** Plantation Creek Range. And that's where passing where your
- passing arrangements often occur?
- 17 **CAPT Fendig:** We normally meet there, yes. We could meet before according to the
- draft of the ship and the nature of the two ships you could meet slightly above. These
- two did not, but you could meet slightly above the widener or out by the lighthouse in
- that zone. That's a passing or meeting zone.
- 21 **CAPT WELBORN:** Sure. So Captain in those areas where you have meeting
- arrangements, what's the average distance in feet between the ships when you're
- passing?

- 1 **CAPT Fendig:** That varies with the Pilots on duty and the ship, nature of the ships.
- 2 **CAPT WELBORN:** Captain can you give a range on that, just put some numbers to
- 3 that?
- 4 **CAPT Fendig:** A rough estimate would be from one and a half ship widths to four ship
- 5 widths between.
- 6 **NTSB:** Is the [in audible]
- 7 **CAPT WELBORN:** Hang on its cutting out again. Captain is there a difference
- between daytime and nighttime operations? Would vessels be closer in one, maybe
- 9 further apart in the other? Is there any difference in a meeting situation?
- 10 **CAPT Fendig:** Not normally.
- 11 **CAPT WELBORN:** Lieutenant Commander
- 12 **CAPT Fendig:** Captain Welborn.
- 13 **CAPT WELBORN:** Yes, sir.
- 14 **CAPT Fendig:** I would like to clarify on previous testimony. When a Pilot reports for
- duty in or out and he's on board the vessel and the Master has transferred the con to
- the Pilot prior to doing so it is presumed by the Pilot that the vessel is seaworthy. In my
- mind's eye that would mean I could use hard over hard over if you have situation or if
- 18 you had to avert, heaven forbid a collision or something like that. And it would also
- mean I could use any order on the telegraph. In my mind's eye she's not seaworthy if I
- can't do all of that.
- 21 **CAPT WELBORN:** Understood Captain. But occasionally you might be given some
- feedback from the Master you said on an infrequent basis.
- 23 **CAPT Fendig:** Very infrequently. It would be very rare.

- 1 **CAPT WELBORN:** Understood, understood. Okay so Mr. Reisman do you have
- 2 phone or do you have questions for Captain Fendig?
- 3 **Mr. Reisman:** Thank you Captain I have no questions for this witness.
- 4 **CAPT WELBORN:** Roger. I understood that. Okay. And I'm checking our live feed.
- We do not have any questions from KMST. Do we have any external questions for this
- 6 witness? I see no. Okay. So Captain thank you very much for your testimony today. I
- do appreciate your wiliness to come in and chat with us. I do appreciate your
- 8 professionalism and the things that you bring to the table. So please know that you're
- 9 subject to recall. Please remain available until dismissed at the closing of these
- 10 proceedings.
- 11 **CAPT Fendig:** Yes, sir. Now I would like to close, Captain Welborn by thanking the
- 12 U.S. Coast Guard for their response to this disaster in our town. It's we're very
- pleased that nobody was severely injured and let's get this cleaned up and move
- forward. I would like to thank the Coast Guard for responding.
- 15 **CAPT WELBORN:** Understood. Thank you sir. I appreciate you putting that on the
- record. Okay the time now is 1:57 and we are recessed for 10 minutes.
- 17 The hearing recessed at 1:57, 14 September 2020
- The hearing was called to order at 2:17, 14 September 2020.
- 19 **CAPT WELBORN:** Okay the time is 2:17 local and we're back on the record for the
- 20 GOLDEN RAY hearing. Unfortunately we've had several technical difficulties and one
- witness issue this afternoon. One of the witnesses misread the subpoena so we've
- called our last witness for today. But I have a short closing statement. So today, we
- looked at Coast Guard Exhibit 1, we went through the timeline of events leading up to

the capsizing of the GOLDEN RAY. I spoke about the ship's particulars and we listened to the PPU recording leading up to the capsizing of the GOLDEN RAY. In addition, we heard from Captain Bruce Fendig of the Brunswick Bar Pilots Association. Captain Fendig spoke about the characteristics of the Port of Brunswick and testified as to vessel characteristics and changing personalities in different tides and depths of water. We looked at Exhibit 02, the NOAA Chart 11506. Captain Fendig identified various areas of the port of Brunswick, including the widener, widener 11 and the passing areas for ships inbound and outbound. We understand that we've been plagued with some audio issues today and we're doing everything we can to improve the audio transmission for subsequent sessions but a written transcript will ultimately be available for the public. In addition, every exhibit will be publicly available in the news media news room as they are entered into the record. The exhibit entered by Captain Fendig today will be made available this evening. The link to the news room is located in the press release announcing the hearing. We appreciate your understanding and patience while we continue to labor to fix these issues. We will be using the rest of today to rectify the audio issues with the LiveStream and our remote participants. The schedule is amended to have Mr. Steve Farley of Brunswick Stevedores testify tomorrow at 10:30 A.M. and Mr. Jason O'Kane of the U.S. Army Corps of Engineers to testify tomorrow at 12:30 P.M. Due to Tropical Storm currently soon to be Hurricane Sally heading toward Louisiana, we will be postponing the rest of tomorrow's session to Wednesday because the remainder of the witnesses scheduled to testify are located in New Orleans, Louisiana.

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On Wednesday's session, we will be hearing from Mr. Mike Mavrinac from Hyundai Glovis; Mr. Sammy Maatki from Norton Lilly; additionally Mr. Hyun Jip Choi from the Safety Management Team of G-Marine. Should any person have, or believe 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: <u>USCGGoldenRay@gmail.com</u>. Thank you very much for your attendance today. The local time now is 2:20. Hearing Session Day 1 is now adjourned.