1	GOLDEN RAY Hearing
2	15 September 2020
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4	CAPT Welborn: Good morning. The time is now 10:30 local. We are back on the
5	record in the matter of: the capsizing of the GOLDEN RAY on September 8, 2019 while
6	transiting the St. Simons Sound in Brunswick, GA.
7	First of all I would like to apologize to those that were live streaming yesterday and were
8	unable to hear the audio portion of the transmission. We've made several changes. So
9	I want to thank the staff her for their diligent work yesterday afternoon to correct those.
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10 If you have continued problems please respond to the text and or the email that will follow. Today is Tuesday, September 15, 2020. It is the second day of the public 11 12 hearing into the capsizing of the GOLDEN RAY. I am CAPT Blake Welborn. the Lead 13 Investigating Officer for this 7th District Formal Investigation. I'm the Presiding Officer over these proceedings. The 7th District Commander, has convened this investigation 14 15 under the Title 46, United States Code, Section 6301 and Title 46, Code of Federal 16 Regulations, Part 4, to investigate the facts and circumstances surrounding the 17 capsizing of the GOLDEN RAY. This investigation was mutually agreed upon to be a 18 joint effort between the ship's flag state, the Republic of the Marshall Islands, the U.S. National Transportation Safety Board, the Korean Maritime Safety Tribunal, and the 19 20 U.S. Coast Guard.

We will conduct the investigation under the rules in Title 46, Code of Federal
Regulations, Part 4.

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1	Present today, other than myself, are the following members of this Formal
2	Investigation: Mr. Lee Willett, Lieutenant Commander
3	serving as our Recorder. The legal counsel to this investigation is LT
4	The National Transportation Safety Board is participating in this hearing. Captain David
5	Flaherty, investigator-in-charge, is appearing virtually.
6	The Republic of the Marshall Islands' representative is Mr. Thomas Bremer, who is
7	seated to my right.
8	In addition, Korea Maritime Safety Tribunal personnel have given me questions to ask
9	on their behalf but will otherwise not be physically appearing in this hearing. I will note
10	when the time arises for me to ask the questions posed by KMST.
11	I would like to request that all persons present to minimize any disruptive influences on
12	the proceedings in general and on the witnesses in particular. Witnesses are appearing
13	before the members of this Formal Investigation to provide valuable information that will
14	assist. We request members of the public be courteous and respectful of the hearing
15	location during these proceedings and attend via livestream to comply with the Federal,
16	State, and Local COVID-19 guidelines.
17	For those of you participating via phone or telephone, I ask that you mute yourself until
18	I've recognized you for your questions unless you with to make an objection. All media
19	inquiries and comments regarding the hearing should be sent
20	to GoldenRayPublicHearing@gmail.com.
21	The Coast Guard has designated Parties In Interest to this investigation. I have
22	designated the following organizations and individuals as Parties in Interest: (1) the
23	Brunswick Bar Pilots Association; (2) Captain Bruce Fendig; (3) Captain Jonathan

1	Tennant; (4) the Owners of the GOLDEN RAY, including Hyundai Glovis and G-Marine;
2	and (5) the space charterer for the GOLDEN RAY. The lead counsel for the Brunswick
3	Bar Pilots Association, Captain Fendig, and Captain Tennant is appearing by phone.
4	The lead counsel for the Owners of the GOLDEN RAY, including Hyundai Glovis and G-
5	Marine, is appearing by phone with a representative physically here at the hearing.
6	The space charterer on the GOLDEN RAY has elected not to participate in this
7	hearing but will be monitoring the live feed of these proceedings. I will now ask that
8	counsel announce their appearances on behalf of their clients:
9	Brunswick Pilots Association, Captain Jonathan Tennant, and Captain Brue Fendig. Mr.
10	Gilsenan are you with us? Mr. Gilsenan is in a non-audible monitoring situation. The
11	Owners of the GOLDEN RAY, Mr. Reisman and Mr. Moseley are you with us?
12	Mr. Moseley & Mr. Reisman: Yes we are. Good Morning Captain this is David
13	Reisman on behalf of the [in audible] and G-Marine Service.
14	CAPT WELBORN: Thank you Mr. Reisman, Mr. Moseley, we do appreciate it. Captain
15	David Flaherty will now say a few words on behalf of the NTSB.
16	NTSB: Good morning. I am the Investigator in Charge for the National Transportation
17	Safety Board's investigation of this accident, the safety board is an independent Federal
18	agency which under the Independent Safety Board Act of 1974 is required to determine
19	the cause or the probable cause of this accident. To issue a report of the facts,
20	conditions and circumstances related to it
21	CAPT WELBORN: Captain Flaherty we seem to have lost your feed. Are you still with
\mathbf{r}	us? Obviously the gramling continue to play us. So the time, the local time is 10:26

us? Obviously the gremlins continue to play us. So the time, the local time is 10:36

- we'll take a 5 minute recess to reestablish coms with Captain Flaherty and then we'll
 call our first witness. This formal hearing is now in recess.
- 3 The hearing recessed at 10:36, 15 September 2020

The hearing was called to order at 10:41, 15 September 2020.

5 CAPT WELBORN: The time is now 10:41 local. We've reestablished coms with 6 Captain Flaherty at NTSB so we'll begin his opening statement again. Captain Flaherty. 7 NTSB: Thank you Captain Welborn. Good morning. I am David Flaherty the 8 Investigator in Charge for the National Transportation Safety Board's investigation of 9 this accident, the safety board is an independent Federal agency which under the 10 Independent Safety Board Act of 1974 is required to determine the cause or the 11 probable cause of this accident. To issue a report of the facts, conditions and 12 circumstances related to it and may make recommendations to prevent similar 13 accidents. The NTSB has joined this hearing to avoid duplicating the development of 14 facts. Nether the less I do wish do to point out that this does not preclude the NTSB 15 from developing additional information separately from this proceeding if that becomes 16 necessary. At the conclusion of the hearing the NTSB will analyze the facts of this 17 accident and determine the probable cause independent from the Coast Guard. At a 18 future date a separate report of the NTSB's findings will be issued which will include our 19 official determination of the probable cause of this accident. And if appropriate the 20 safety board will issue recommendations to correct safety problems discovered during 21 this investigation. These recommendations may be made in advance of the report. 22 Thank you.

1	CAPT WELBORN: Thank you, Captain Flaherty. So the Coast Guard will now call its
2	first witness of the day Mr. Steve Farley of the Brunswick Stevedores who will be
3	questioned by Mr. Lee Willett.
4	Recorder: Good morning Mr. Farley can you hear me?
5	Mr. Farley: Yes.
6	Recorder: Okay. If I could have you please stand and raise your right hand I'm going
7	to give you an oath.
8	Mr. Farley: Uh is this good?
9	Recorder: That's good. A false statement given to an agency of the United States is
10	punishable by fine and or imprisonment under 18 United States Code 1001. Knowing
11	this do you solemnly swear that the testimony you're about to give will be the truth, the
12	whole truth and nothing but the truth so help you God?
13	Mr. Farley: I do.
14	Recorder: Thank you Mr. Farley. I'm now going to pass over to Mr. Willett who will
15	take your questions.
16	Mr. Willett: Hello Mr. Farley.
17	Mr. Farley: Hello.
18	Mr. Willett: My name is Lee Willett, spelled W-I-L-L-E-T-T. I'm one of the investigators
19	assigned to District Seven investigation to the GOLDEN RAY incident. I would like to
20	ask you some questions before we get started. Could you please state your name and
21	spell your last name for the record?
22	Mr. Farley: Steve Farley, F-A-R-L-E-Y.
23	Mr. Willett: Mr. Farley are you represented by counsel?

Mr. Farley: No.

- **Mr. Willett:** Have you been designed as a party in interest?
- **Mr. Farley:** I talk to a lawyer over a year ago. But he's not hear right now.
- **Mr. Willett:** Do you hold any professional certificates or certifications?
- **Mr. Farley:** No.
- **Mr. Willett:** Can you give me a brief summary of your background and your
- 7 experience?
- **Mr. Farley:** Well I've been doing ships, whether its container ships, break [in audible]
- 9 ships, RORO ships, auto vessels for about 14 years now.
- **Mr. Willett:** Okay when you say you do ships what exactly do you do?
- **Mr. Farley:** I'm the superintendent on them. I watch stevedores.
- **Mr. Willett:** Okay. And what would a stevedore do in regards to the vessel?
- **Mr. Farley:** He would be he's in charge of the outlet we move. Director of Stevedore
- 14 then Lead Stevedore, or Lead Superintendent, which that's what I am, Lead
- 15 Superintendent. So we oversee the [in audible] during the operation of the vessel.
- **Mr. Willett:** Who is your current employer?
- **Mr. Farley:** SSA Atlantic. For the time being at least the next couple of days I've been
- 18 out of work for over a year now.
- **Mr. Willett:** Okay. So during the time of the incident what position did you hold?
- **Mr. Farley:** I was the Assistant Manager in Brunswick, Georgia. And that particular
- ship I was the Lead Superintendent.
- **Mr. Willett:** How long did you hold that position?
- **Mr. Farley:** Oh gosh. Which one, the Assistant Manager?

- 1 **Mr. Willett:** No what you did at the time of the GOLDEN RAY.
- 2 **Mr. Farley:** Six years.
- 3 **Mr. Willett:** Have you received any training for that position?
- 4 **Mr. Farley:** Yes it's ongoing training. I was just a stevedore and then when they
- 5 moved me to Brick Vault they started training me on paperwork, how to set up ships and
- 6 that kind of thing. Then when I went to Brunswick they turned me loose and I started
- 7 setting up all the ships. And then it finally got to RORO ships and then they made it
- 8 systematic. So yeah I've worked with for a decent time.
- 9 Mr. Willett: Okay. For specifically for the GOLDEN RAY could you describe your
 10 responsibilities for your position?
- 11 **Mr. Farley:** The GOLDEN RAY I was in charge of setting up the labor for the ship, the 12 operation of the ship, you know I set the sailing line at the end. I hire out the labor. And 13 then have the stevedores on how to [in audible].
- 14 **Mr. Willett:** Okay going into that, what's kind of the process? So a vessel comes into 15 the Port of Brunswick you know it's coming, how do you get information to tell you what
- 16 you need to do for that vessel?
- Mr. Farley: Well the GOLDEN RAY [in audible]. I think they were good. Lot of times it is a two day, sometimes even three days or four. They will send me a discharge claimant which is the schematic of the ship, they will send me the manifest of the discharge autos or whatever is coming on. The day of load you can pull it right and get the manifest for that. I get smooth plan where they want the cars and I set that all up and I distribute that out to my stevedores that are working under me. [In audible].

Mr. Willett: So I think you answered the question, but how do you know how many
vehicles are going to be offloaded and how many vehicles are going to be loaded onto
the ship?
Mr. Farley: [In audible] of the manifest. I cannot take a car off or load the car if it's not
on the manifest.
Mr. Willett: And who gives you that manifest?
Mr. Farley: The shipping line.
Mr. Willett: And do you remember in the case of the GOLDEN RAY who you received
that manifest or that document from?
Mr. Farley: Well the manifest, don't get me wrong we'll go through an agency and he
sent me the manifest. Somebody from Gold Bright whether the port has it or the
logistics person, that's where I get that from.
Mr. Willett: Do you remember specifically from Gold Bright who sent you that
document?
Mr. Farley: Somebody named Sandy from Northern Lilly (sic).
Mr. Willett: Okay.
Mr. Farley: He forecast to that. He sends me some like instructions. There will be
instructions underneath the documents, instructions of how he wants it.
Mr. Willett: And do you recall his last name?
Mr. Farley: Kind of a weird name starts with an N. Nihaki or Natoka (sic).
Mr. Willett: Okay. Do you remember how far in advance you got that stow plan for the
GOLDEN RAY?
Mr. Farley: Probably I want to say 4, but at least day.

1	Mr. Willett: So you got that stow plan and then what kind of happens next?
2	Mr. Farley: I print everything out. I look over the stow plan. I highlight what say SSI,
3	which I don't know why they do that [in audible]. The discharge parts will say SSI stow
4	plan. And there's all kinds of cars on there that aren't mine. So what I do is I highlight
5	SSI for everybody to read so they don't have to sift through. And it will look like it will
6	say done. Now take the GOLDEN RAY they might have – they probably had seven
7	different port changes. So all already you might highlight red, [in audible] might
8	highlight green. See what I'm saying. So I get all that paperwork together for the guys
9	and I distribute that out.
10	Mr. Willett: Okay and then what would typically happen, do you do – you offload the
11	vehicles first, the ones that are coming off at St. Simons?
12	Mr. Farley: Yes, sir.
13	Mr. Willett: Do you recall how many vehicles you guys offloaded that day?
14	Mr. Farley: 280 something I believe.
15	Mr. Willett: Were they SUV's or small cars or?
16	Mr. Farley: They would be small cars like Accents. There's only two different kinds
17	coming from Mexico. Accents and Forte I think.
18	Mr. Willett: So when your people go on board the ship did they physically undo the
19	lashings and then get into the car? How does that work?
20	Mr. Farley: So you've got to match.
21	Mr. Willett: Okay.
22	Mr. Farley: Think of how many cars, that's not a lot of cars. I probably only four
23	lashings. They need to cut a frame they pay a company to

- **Mr. Willett:** Yes.
- **Mr. Farley:** I forget the name. Four ship loads one of the stevedores will go check it
- 3 out everything is where it is. And the lashings go and unlash and the rest of the hired
- 4 labor drive, they drive them off. The lashers don't drive them off.
- **Mr. Willett:** Okay. So you have a separate group that does the lashing, they undo the
- 6 lashing and then another group drives the cars off.
- **Mr. Farley:** Right.
- **Mr. Willett:** Do you remember how long that took to offload the vessel?
- **Mr. Farley:** That would take an hour and a few minutes probably.
- **Mr. Willett:** Okay.
- **Mr. Farley:** Again I'm guessing I believe.
- **Mr. Willett:** So you have the cars offloaded and then now you are going to do what?
- **Mr. Farley:** Load it back. If you have to load back. GOLDEN RAY we loaded back.
- **Mr. Willett:** Do you remember approximately how many vehicles you loaded back onto
- 15 the GOLDEN RAY?
- **Mr. Farley:** 300, I will say 360. I can't tell you.
- **Mr. Willett:** Do you remember the type of vehicle?
- **Mr. Farley:** Yes there's only one type of vehicle. That was [in audible].
- 19 Mr. Willett: So those are larger like a SUV or are they ----
- **Mr. Farley:** Yes.
- 21 Mr. Willett: Okay. And
- **Mr. Farley:** About like a Jeep Cherokee.

- 1 **Mr. Willett:** Okay. Whenever you loaded the vehicles onto the ship I'm assuming you
- 2 guys, you group drove them on board.
- 3 **Mr. Farley:** Oh yeah drive on board.
- 4 Mr. Willett: So how do you know where they're going again on board the vessel?
- 5 **Mr. Farley:** Like I said there's a stow plan that's attached to the discharge cars, autos.
- 6 Then you have [in audible] where they want them.
- 7 **Mr. Willett:** Okay.
- 8 Mr. Farley: [In audible] comes off first. So you have to move about discharging
- 9 overseas. Does that make sense?
- 10 **Mr. Willett:** Yes. Do you remember what decks you offloaded and then what decks
- 11 were loaded back on?
- 12 Mr. Farley: Yeah. We offloaded decks 12 and 11. And loaded back decks 12 and 11
- 13 and deck overload.
- 14 Mr. Willett: So you offloaded from two decks and you on loaded to three decks?
- 15 **Mr. Farley:** Right.
- 16 Mr. Willett: So when ----
- 17 **Mr. Farley:** I'm sorry.
- 18 **Mr. Willett:** No, no you go ahead.
- 19 **Mr. Farley:** The depart on deck 12 and 11 those are a safe spot.
- 20 **Mr. Willett:** Okay.
- 21 **Mr. Farley:** And overflow was [in audible] which deck 5.

- **Mr. Willett:** Did that plan change at all during the loading? Or was the plan you got the
- 2 day prior to the GOLDEN RAY coming in did you guys have to change it from that day
- 3 at all? Or did you stick to the plan that was given?
- **Mr. Farley:** Stuck to the plan.
- **Mr. Willett:** When the vessels were loaded did your crew or your team are they the
- 6 ones that actually secure the vehicles to the decks?
- **Mr. Farley:** The lashing the unlashing of cars?
- **Mr. Willett:** Yes.
- **Mr. Farley:** They lash the car.
- **Mr. Willett:** So it was that same team?
- **Mr. Farley:** Yes.
- **Mr. Willett:** Okay. Who actually provides the lashings for the vehicles?
- **Mr. Farley:** The ship.
- **Mr. Willett:** And do you remember did you go on board at all?
- **Mr. Farley:** Oh gosh yeah.
- **Mr. Willett:** So while you were on board the operation of unloading and loading and the
- 17 lashing was that something that you would typically see? Was anything out of the
- 18 ordinary or was it was like a normal day?
- **Mr. Farley:** I mean it was a normal day. When they unlash cars they moved lashing
- 20 out of the way so you don't run over it.
- **Mr. Willett:** Right.
- **Mr. Farley:** And when you're loading cars they start lashing as you're loading.

1	Mr. Willett: And during the loading and unloading did you notice anything whatsoever
2	out of the ordinary? Did the ship list at all or was anything out of the ordinary at all?
3	Mr. Farley: I didn't notice a list. Nothing out of the ordinary.
4	Mr. Willett: Okay.
5	Mr. Farley: I've seen ships list a lot, we'll stop work if that happens.
6	Mr. Willett: So in this case the GOLDEN RAY did you notice an unusual list?
7	Mr. Farley: Nothing out of the ordinary.
8	Mr. Willett: Okay. So after the vehicles are stowed on the vessel who comes back and
9	verifies that everything is lashed properly?
10	Mr. Farley: Well a deck seaman. So say I loaded deck 12 right.
11	Mr. Willett: Yes.
12	Mr. Farley: They've got to look at deck 12 first and then you come down to deck 11.
13	One of my stevedores will be up there on deck 12 with lashing with along with one of
14	the [in audible]. Once they're done lashing they'll go down to deck 11 where I load the
15	car the stevedore will be, the other stevedore if they weren't caught up [in audible].
16	Mr. Willett: Okay.
17	Mr. Farley: So that stevedore will go down to deck 5 load them cars. But there's only
18	the stevedore and the lasher and [in audible].
19	Mr. Willett: So there's usually a stevedore, a supervisor and somebody from the
20	vessel?
21	Mr. Farley: Yes and a supervisor. [In audible] it's their boss. So if I had a problem with
22	somebody from the gang I was telling somebody to do the head [in aubidlbe].
23	Mr. Willett: Okay. And

1 Mr. Farley	/: [In audible].
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- Mr. Willett: In the case of the Golden Ray did you guys use a checklist or anything to
 say alright we completed deck 13, everything's secured and ----
- 4 **Mr. Farley:** Yeah you have on the stow plan, you also have a checkout list so in other
- 5 words if I load 20 cars for [in audible] we'll check lashing, check off on the stow plan.
- 6 **Mr. Willett:** Have you ever had an instance where like the ship gives you a lashing and
- 7 it doesn't look like its it looks kind of old or it looks frayed? Has that happened
- 8 before?
- 9 **Mr. Farley:** Sir, I'm sure it has. I mean there's lashing I've been lashing these cars
- 10 on these other ships. I mean literally thousands of them. But [in audible] cranked down
- 11 like that, [in audible] you get it out of the way. See what I'm saying.
- 12 **Mr. Willett:** So you were on the vessel, all the decks, did you did it appear to you that
- 13 all the vessels were lashed correctly?
- 14 **Mr. Farley:** The load back?
- 15 **Mr. Willett:** Yes.
- Mr. Farley: Yes. I have a lot to do. I go back and forth. So I've also got lash the cars
 [in audible]. I move back and forth.
- 18 **Mr. Willett:** Speaking of these cars that you're loading do you recall or know about
- 19 approximately how much fuel was on board each vessel, or each vehicle?
- 20 **Mr. Farley:** They usually only have a couple of gallons, that's it. A lot of times we'll run
- 21 out I've got to put gas in them.
- 22 **Mr. Willett:** Did that happen with the GOLDEN RAY at all?
- 23 Mr. Farley: None of them ran out. Other than they run [in audible].

Mr. Willett: Okay. So when the vehicle are loaded do you guys disconnect the
 batteries at all or anything like that?

3 **Mr. Farley:** Not on automobiles.

4 **Mr. Willett:** So in this case you drove the vehicles on, they maybe had a gallon or two

5 of gas, they were all secured correctly, a couple people checked it, the vessel checked

6 it and then you get a report back to say everything's secured and ready? You're done.

7 **Mr. Farley:** Yeah. We were done with deck 12, my stevedores they said we're done on

8 deck 12 and they've checked it. You've got a lot of eyes on it. It's not one person

- 9 looking at it.
- Mr. Willett: Do you remember what time you guys had anticipated to be completed
 with unloading and loading the GOLDEN RAY?
- 12 **Mr. Farley:** Well it's a four hour guarantee. So when I get it set up I try to get to that
- 13 high so that the shipping line doesn't [in audible] a month later. I think it was around
- 14 10:42 we were done. That way we know by 11.
- 15 **Mr. Willett:** And that was all schedule?
- 16 **Mr. Farley:** Yeah. We did pretty good.
- 17 Mr. Willett: Did it seem like the crew or the vessel were rushed at all? Or was it a
- 18 typical loading and unloading?
- 19 **Mr. Farley:** They weren't rushed. They set sailing for 1 and normally you don't set
- 20 sailing for an hour later. So I could have set sailing for midnight, but I'm pretty sure it
- 21 was set sailing for 1 a.m.
- 22 **Mr. Willett:** So you control that. So you estimate what time you're going to be done.

1	Mr. Farley: I don't control I ask them. I will ask the Mate or the Chief Mate, hey Chief
2	I'm going to set sail, and it's usually – its usually an hour after completion.
3	Mr. Willett: Okay.
4	Mr. Farley: So I'll say Chief Mate we're done, set sail for midnight. He might say oh on
5	we're going to set it for 1 a.m., okay. We'll set it for 1.
6	Mr. Willett: So in this case did anybody approach you at all and say hey we need you
7	to be done by this time or it's going to come up to a window or anything?
8	Mr. Farley: Oh no.
9	Mr. Willett: Well Mr. Farley I appreciate you being here with us today for the testimony.
10	I'm going to ask other members of the team if they have any additional questions. Mr.
11	Welborn, Captain Welborn, I turn it back over to you.
12	Mr. Farley: Okay, thank you.
13	CAPT WELBORN: Thank you Mr. Willett, I will hold my questions until the end. Mr.
14	Bremer from the Republic of Marshall Islands, do you have follow on questions for this
15	witness?
16	Mr. Bremer: Thank you Captain, no questions.
17	CAPT WELBORN: Thank you Mr. Bremer. Mr. Reisman, do you have questions for
18	this witness?
19	Mr. Moseley: This is Mr. Moseley and Mr. Reisman, there's no questions.
20	CAPT WELBORN: Thank you Mr. Moseley, appreciate it. Captain Flaherty, NTSB do
21	you have follow on questions for this witness?
22	Mr. Farley: I didn't hear that question.
23	Mr. Willett: He was asking if Captain Flaherty had any additional questions.

1	Mr. Farley: Oh.
2	Mr. Willett: Stand by.
3	NTSB: Mr. Farley, sir. Can you hear me?
4	Mr. Farley: Yes, sir.
5	NTSB: Great. As I recall you've got this job for about 8 years, correct?
6	Mr. Farley: Yes.
7	NTSB: And comparing other all the vessels you've been in charge of for the loading
8	and unloading the GOLDEN RAY loading and unloaded went as normal as it is usually
9	is?
10	Mr. Farley: Actually all the boilers ships are the best merchant ships out there to be
11	quite honest with you.
12	NTSB: Now the vehicles that are loaded on do you recall how much they weighed?
13	Mr. Farley: Yes they weigh 1.95 tons.
14	NTSB: And how [in audible]
15	Mr. Farley: [In audible].
16	NTSB: And do you know by this by manifest or who gave you the information for that
17	manifest?
18	Mr. Farley: With my company I do it. Load check and all that. And your stow plan is
19	the same has it on there.
20	NTSB: So a sample vehicle prior to being loaded is independently weighed [in
21	audible]?
22	Mr. Farley: No I can't tell you that. I don't think so.
23	NTSB: Did you meet with the Chief Officer or any of the officers?

1	Mr. Farley: I can remember if I met with Chief Mate or rest of the team with the ship or
2	not. Oh, one of my superintendent probably did. Because all the cars left so we did
3	have a chief hey we've got to put these three cars down on the deck 5. So somebody
4	probably talked to the Chief Mate. Somebody in charge of that we would go through for
5	putting the cars on deck 5.
6	NTSB: So originally were only deck 11 and deck 12?
7	Mr. Farley: See if you look at the instructions for that ship, about [in audible]. This is
8	cargo deck 12, this is cargo deck 11. You're set for the overflow on deck 5.
9	NTSB: Do you recall how many were on overflow on deck 5.
10	Mr. Farley: Sixty seven I think, sixty five maybe. Something like that.
11	NTSB: Is the deck 5?
12	Mr. Farley: Yeah. It's high on the load line if you've got to have a overflow.
13	NTSB: Is it common to handle overflow?
14	Mr. Farley: Yeah. Yes.
15	NTSB: Alright.
16	Mr. Farley: I mean sometimes you do have one, sometimes you don't. Really depends
17	on how old the ship is, how many cars. You know. Basically you're able to load 100
18	cars on one of these overflows.
19	NTSB: Right. That compensates sixty six vehicles to deck 5 [in audible].
20	Mr. Farley: No. That's the thing. That's the main deck.
21	NTSB: So you did not know when the vessel arrived that morning that it would be an
22	overflow?

1	Mr. Farley: We kind of figured we would be because we only took off 285 new cars and
2	loaded 300 something bigger you know something's got to go to deck 5. You just don't
3	know how many.
4	NTSB: Thank you.

- **Mr. Farley:** We knew we were going to deck 5.
- **NTSB:** And when you're loading the vessel what is a common issue that you have to
- 7 ensure with putting cars on?
- **Mr. Farley:** Issues?
- **NTSB:** Like parking, proper strapping. I mean traffic management.
- **Mr. Farley:** Oh yeah. We have spots. So every car you've got, like every room you've
- 11 got to be able to walk through. And then it's called spacing the mirrors they've got to be
- 12 at least the size of your fist in between. So it's tight. But it can't have [in audible]
- 13 between the main rows, lashings. You get that too tight you can't lash it.
- **NTSB:** Right. And then how were the lashes attached to the vehicle?
- 15 Mr. Farley: All vehicles are different though. The [in audible] you have a lashing ring
- 16 on the bottom front, lash, take two stains do a weird hit on them.
- **NTSB:** Okay.
- **Mr. Farley:** Now that forward and aft, that's like the car facing forward or aft.
- **NTSB:** Right.
- **Mr. Farley:** Facing the north ship, starboard or port side you've got put three and three.
- **NTSB:** Okay.
- **Mr. Farley:** [in audible]
- **NTSB:** And were the cars forward and aft?

- **Mr. Farley:** No. Some.
- **NTSB:** Were the hooks in them, are the vehicles that a lash will attached to, did they
- 3 come with the vehicle?
- **Mr. Farley:** Oh yeah. They're already on the vehicle.
- **NTSB:** And are the ones, this type of vehicle that are loaded because they're a heavier
- 6 vehicle do they require a sturdier type of hook?
- **Mr. Farley:** I wouldn't say that. These are 1.99 tons are not very heavy.
- **NTSB:** With the interaction with the crew did they ever mention that they had to move,
- 9 internally fuel or ballast?
- **Mr. Farley:** They wouldn't tell me that.
- **NTSB:** Did the ship take on any fuel while it was at dock?
- **Mr. Farley:** I don't think so.
- **NTSB:** And did you, while you were onboard did you see the crew members going
- 14 around and taking soundings of the tanks?
- **Mr. Farley:** I wouldn't know.
- **NTSB:** And -----
- **Mr. Farley:** You understand I don't know.
- **NTSB:** And at any time did the Chief Officer or any of the crew members say that they
- 19 had to stop to adjust something within the ship?
- **Mr. Farley:** No I don't recall that either. Now he had to stop and shift to adjust the
- stern. But I don't remember any of that.
- **NTSB:** Okay, great. Well, sir, thank you for your time.
- 23 Mr. Farley: Yeah.

1	Mr. Willett: Mr. Farley we did have one more question. I just wanted to clarify who you
2	actually work. If you could kind of explain, I know you said SSA, but can you go into
3	that a little more detail?
4	Mr. Farley: SSA Atlantic is a Stevedore company. And we're all over the United States
5	basically.
6	Mr. Willett: Okay.
7	Mr. Farley: And all over the world for that matter.
8	Mr. Willett: And then you're typically hired by ships to load, get gangs together to load
9	and unload their vessels, is that correct?
10	Mr. Farley: That's correct.
11	Mr. Willett: And in this case you were hired by do you recall?
12	Mr. Farley: I'm in charge, nobody hired me.
13	Mr. Willett: Okay.
14	Mr. Farley: I'm the lead person.
15	Mr. Willett: So basically if any vessel at all, any RORO comes into Brunswick who
16	would they have to use to load and unload the vessel?
17	Mr. Farley: Well you've got – well you have, at that time you still had four member
18	stevedore companies. Depends who's got the contract.
19	Mr. Willett: Okay. So did you have a contract with Hyundai Glovis?
20	Mr. Farley: Yes, SSA does, yeah.
21	Mr. Willett: So every Hyundai Glovis vessel that came to Brunswick would use SSA to
22	load and unload their vessel?
23	Mr. Farley: Yes. Except if it they were a charter by another company, say MOM.

- **Mr. Willett:** Okay, but in this case Hyundai Glovis used you?
- **Mr. Farley:** Yeah.
- **Mr. Willett:** Okay. Thank you sir. I'm sorry.
- **Mr. Farley:** I said no problem.
- **Mr. Willett:** If nobody has any other questions I will dismiss you. I would like to say
- 6 thank you for your test --- yes.
- **CAPT WELBORN:** No, no. Mr. Willett.
- **Mr. Willett:** Yes.
- **CAPT WELBORN:** I'm sorry I do have a couple of questions. First of all I do have one
- 10 question from KMST, the Korean Maritime Safety Tribunal. The question Mr. Farley,
- 11 can you hear me?
- **Mr. Farley:** No I cannot.
- Mr. Willett: I'm going to step away and Captain Welborn is going to sit down in this
 seat and he's going to ask you the question. Thank you, sir.
- **Mr. Farley:** Alright.
- **CAPT WELBORN:** Mr. Farley this is Captain Blake Welborn can you hear me?
- **Mr. Farley:** Yes, sir.
- **CAPT WELBORN:** Great, thank you again for coming, or appearing today, we do
- appreciate it. So our question from KMST involves the lashings themselves. Can you
- tell us how much pressure, how much how much how much would it take for the
- vessel to heel over before one of these lashing would part? Can you comment on that?
- **Mr. Farley:** You need a specific turn it upside down and it's hanging?
- 23 CAPT WELBORN: Yes, sir.

- **Mr. Farley:** I couldn't tell you that.
- 2 CAPT WELBORN: Okay. Do you know ----
- **Mr. Farley:** I mean.
- **CAPT WELBORN:** Please, sir.
- **Mr. Farley:** Lashing, I think it's a 1 ton lashing. But they're hold something down. Not
- 6 to hang.
- **CAPT WELBORN:** Understood.
- **Mr. Farley:** Does that make sense?
- **CAPT WELBORN:** Yes, sir, yes, sir. So do you know maybe the test strength of these
- 10 of a typical lashing that you would see on a RORO type vessel?
- **Mr. Farley:** Are the ones we use are they typical? Is that what you're asking?
- **CAPT WELBORN:** Well what would be the strength of those lashing?
- **Mr. Farley:** One ton on each one of them, would be one ton.
- **CAPT WELBORN:** Okay. You have one forward and one aft.
- **Mr. Farley:** Two forward, two aft.
- **CAPT WELBORN:** And then you said you also have some on the side of the vehicle.
- **Mr. Farley:** No.
- **CAPT WELBORN:** No.
- **Mr. Farley:** We don't put them on the side.
- **CAPT WELBORN:** Okay. So two forward, two aft so you've got four in the lashing on
- each vehicle.
- **Mr. Farley:** Right.

1	CAPT WELBORN: Understood, sir. Thank you for that clarification. So Mr. Farley a
2	couple of follow-on questions. I know your primary duties and responsibilities do not
3	include the stability of the vessel. You are there to load and or unload the vessel itself.
4	Mr. Farley: Right.
5	CAPT WELBORN: But I want to ask a couple of questions down that road if I could.
6	Mr. Farley: Sure.
7	CAPT WELBORN: If you're loading a vessel what's – is there a general rule of thumb
8	that you would load a particular type of vessel? Excuse me, a particular type of vehicle
9	in a specific location on the location? For instance would you load large heavy vehicles
10	high on the vessel or would you load them low on the vessel?
11	Mr. Farley: I load them where they tell me to put them. Typically the upper decks,
12	typically the upper decks they can adjust those
13	CAPT WELBORN: Yes, sir.
14	Mr. Farley: Typically we load small cars up top. Typically. So I've seen [in audible].
15	CAPT WELBORN: Understood that completely, sir. So, but typically you'll see smaller
16	vehicles up higher, larger vehicles down low?
17	Mr. Farley: Yeah, typically.
18	CAPT WELBORN: Okay.
19	Mr. Farley: Now if they go down below, below ship, see sections below ship, we can
20	get off cars, so it's small cars.
21	CAPT WELBORN: So do you have to stoop then maybe to get out some of those
22	spaces?
23	Mr. Farley: Yeah. Some guys will hit their head.

- CAPT WELBORN: Yes, sir. Have you, and how many years did you say you've been
 loading cars, sir?
- **Mr. Farley:** Eight years probably now, something like that. Seven or eight years.
- **CAPT WELBORN:** Understood. Have you ever experienced a stability issue with a
- 5 vessel while loading or unloading vehicles?
- **Mr. Farley:** Not on a RORO ship. But I do a lot of break hull ships, they are [in
- 7 audible].
- **CAPT WELBORN:** But never on a RORO?
- **Mr. Farley:** That's mostly what are ship.
- **CAPT WELBORN:** Understood. Alright. One last chance, any questions from our
- 11 SIS's or PII's?
- **NTSB:** Captain Welborn.
- **CAPT WELBORN:** Yes, Captain Flaherty.
- **NTSB:** I have just one final question.
- **CAPT WELBORN:** Please.
- **NTSB:** Sir, [in audible] have you ever heard of that?
- **Mr. Farley:** No.
- **NTSB:** Thank you.
- **CAPT WELBORN:** Mr. Farley I want to thank you again for your attendance today and
- 20 for your participation in this formal hearing. We do reserve the right to recall you until
- 21 we formally close the hearing.
- **Mr. Farley:** Sure.

1	CAPT WELBORN: So there may be a time that we have to call you back and ask a
2	couple more questions. So we please ask that you remain available.
3	Mr. Farley: No problem.
4	CAPT WELBORN: Great, thank you Mr. Farley. We do appreciate your attendance
5	today.
6	Mr. Farley: Alright. Thank you.
7	CAPT WELBORN: The local time is now 11:18. This hearing stands in recess until
8	12:30 at which time we will resume.
9	The hearing recessed at 11:18, 15 September 2020
10	The hearing was called to order at 12:30, 15 September 2020
11	CAPT WELBORN: Okay the local time is 12:30. We're back on the record in the
12	matter of the capsizing of the GOLDEN RAY on September 8 th , 2019 while transiting the
13	St. Simon Sound in Brunswick, Georgia. The next witness will be Mr. Jason O'Kane
14	from the National Oceanographic and Atmosphere Administration. Mr. Lee Willett will
15	conduct this investigation.
16	WIT: I want to do a correct, he's actually from the U.S. Army Corps of Engineers.
17	Recorder: Mr. O'Kane can you please stand and raise your right hand? A false
18	statement given to an agency of the United States is punishable by fine and or
19	imprisonment under 18 United States Code 1001. Knowing this do you solemnly swear
20	that the testimony you're about to give will the truth, the whole truth and nothing but the
21	truth so help you God?
22	Mr. O'Kane: I do.
23	Recorder: Thank you, please be seated.

- **Mr. Willett:** For the record Mr. O'Kane could you please state your name and spell
- 2 your last name for the record?
- 3 Mr. O'Kane: Jason O'Kane, O-K-A-N-E.
- **Mr. Willett:** Are you represented by counsel?
- **Mr. O'Kane:** I am not. But my agency is and I coordinated with them to be here today.
- **Mr. Willett:** Have you been designed as a party in interest?
- **Mr. O'Kane:** Could you repeat that?
- **Mr. Willett:** Have you been designed as a party in interest?
- **Mr. O'Kane:** No.
- Mr. Willett: Do you hold any professional certificates or certifications regarding current
 employment?
- **Mr. O'Kane:** Yes. I hold a project management professional certification of DMV.
- **Mr. Willett:** Can you give brief summary of your background and experience?
- **Mr. O'Kane:** B.S. in Biology. Ten years of regulatory permitting experience with the
- 15 Corps of Engineers. Eight years project management experience. And five years
- 16 navigation experience as Navigation Chief.
- **Mr. Willett:** Who is your current employer?
- **Mr. O'Kane:** The U.S. Army Corps of Engineers.
- **Mr. Willett:** And what position do you hold there?
- **Mr. O'Kane:** I'm currently the Chief of Navigation for Savannah district. I'm in a
- temporary detail as a Chief of regulatory with that Savannah district as well, Corps of
- 22 Engineers.
- **Mr. Willett:** How long have you held that position?

- **Mr. O'Kane:** The permeant position?
- **Mr. Willett:** Yes.
- **Mr. O'Kane:** The Chief of Nav, about five years.
- **Mr. Willett:** Do you receive any specific training for that position?
- **Mr. O'Kane:** Not specifically for it. It's basically experienced based.
- **Mr. Willett:** So your position right now with Chief of Navigation, district for Savannah,
- 7 does that include the Brunswick area as well?
- **Mr. O'Kane:** Yes, Brunswick, yes.
- **Mr. Willett:** So what are the duties in regards to your current position?
- **Mr. O'Kane:** So the Chief of Navigation includes primarily the dredging, the
- 11 maintenance and monitoring of the channels in Brunswick. That's below waterline
- 12 maintenance of a channel bottom through mostly dredging. We also run survey to help
- 13 us see the work we do underwater so we have survey technicians and boat captains
- and boats to help us with that survey mission. We also manage the contract and other
- 15 maintenance work necessary to maintain that channel.
- Mr. Willett: So I think you mentioned it, it does include sonar surveys of the navigable
 waterways?
- **Mr. O'Kane:** Yes, sir.
- **Mr. Willett:** And I ask this again, or before, but Brunswick River and the St. Simon
- 20 Sound are they some of the areas you survey through sonar?
- **Mr. O'Kane:** Absolutely, yes, sir.
- **Mr. Willett:** How often do you normally conduct these surveys?
- **Mr. O'Kane:** We do monthly condition surveys of the entire Brunswick Channel.

- **Mr. Willett:** Do you ever survey them off schedule?
- **Mr. O'Kane:** We do occasionally upon request or if there's need.
- **Mr. Willett:** What are some examples of when you might do it off schedule?
- **Mr. O'Kane:** If there's an issue with a large vessel such as the case with the GOLDEN
- 5 RAY we did additional surveys after that event to help other stakeholders identify what
- 6 the conditions of river were like.
- **Mr. Willett:** Where do these off schedule surveys, how are they normally documented?
- **Mr. O'Kane:** We coordinate, usually the software we use HIGHPAC (sic), not
- 9 everybody has that on their machine, that's not a common software, so we will often
- 10 export it as a PDF and then email that to people. Or if it's too large we'll get it to them
- 11 through an external hard drive.
- **Mr. Willett:** How would that be pushed out to the public?
- **Mr. O'Kane:** We have a website we put the monthly surveys on for the public to view.
- 14 If it's a special survey for specific purpose we probably we do not publish those on a
- 15 regular basis.
- **Mr. Willett:** After Hurricane Dorian around September the 4th, 2019 was there a survey
- 17 for Brunswick River and St. Simons Sound conducted?
- **Mr. O'Kane:** Yes, sir.
- **Mr. Willett:** Do you know who completed that survey?
- **Mr. O'Kane:** We did along with NOAA.
- **Mr. Willett:** Do you know approximately the time it was completed?
- **Mr. O'Kane:** Yes. It was around 1600 hours on the 6th. NOAA completed part of the
- channel, about a third of it on the 5th, and they completed another third of it on the 6th,

1 and we completed about a third of it on the 6th. So we had the entire channel

2 completed, survey completed by about 1600 hours on the 6th.

3 **Mr. Willett:** When you say NOAA, can you expand on that?

Mr. O'Kane: Right. So there's a division at NOAA that does surveys, Kyle Ward based
 out of Charleston. And we coordinate with them regularly on various survey needs. But
 particularly after storm events like Hurricane Dorian.

7 **Mr. Willett:** So you would sometimes use Army Corps of Engineers vessels and also

8 the National Oceanographic vessels as well and you would take some of their surveys

9 and your surveys and do a final product?

10 **Mr. O'Kane:** Right. We share enough product, survey product that we're comfortable

11 with each other's quality controls and different measures that we know what they do and

12 they know what we do and they're closely aligned for quality control. And after a

hurricane it's kind of all hands on deck to be sure channels can be cleared and opened
as quickly as possible.

15 **Mr. Willett:** So are you familiar with Widener 11 down in the Brunswick area?

Mr. O'Kane: I didn't know it by that name, but I think I know the widener you're talking
about.

18 **Mr. Willett:** Do you know if you all surveyed that area post Hurricane Dorian?

19 **Mr. O'Kane:** Yes. We did not go into that widener area with our surveys.

20 **Mr. Willett:** Alright. I think you already answered this. For that particular survey after

21 Hurricane Dorian how was that product made available to the maritime community?

22 **Mr. O'Kane:** We distributed those graphics if you will to Coast Guard, Pilots and the

23 Port Authority via emails.

1	Mr. Willett: So I would like to introduce Exhibit 3A and B. Show I'm showing you
2	Exhibit 3A and B labeled combined multi beam product. Do you recognize this?
3	Mr. O'Kane: Yes, sir.
4	Mr. Willett: Did you or your team produce this?
5	Mr. O'Kane: Yes. This was actually produced by the NOAA team and this represents
6	the two-thirds of the channel that they cleared. And the color ramp corresponds to color
7	coding from their multi beam surveys and showing depths of the channel.
8	Mr. Willett: Could you explain what the colors mean and what the lines are?
9	Mr. O'Kane: Sure. So I guess we'll assume that you know the channel is represented
10	by the colored area, which is what they surveyed. And can you zoom in on the color
11	range? Thank. Can you zoom into like right around in here? So this is in meters. So
12	pretty much anything that's the deep green is at least 10 meters of depth. If you want to
13	- and the base data that come on HIGH PAC has the actual plus or minus centimeters
14	that all this goes to right.

15 **Mr. Willett:** Right.

Mr. O'Kane: So this is a color approximation using a color ram to make it easy for us to turn data into information in our brain. So the inner harbor is authorized at 36 feet. We usually maintained it right around that depth. And the entrance channel is authorized at 38 feet. So if you'll back out again, back to the original view you can see there's some deeper holes as you get closer to the entrance to the sound here.

Mr. Willett: So could you point out, I guess, when you're sitting at St. Simon Sound is
that is where Widener 11 is located?

Mr. O'Kane: I believe Widener 11 is, this is – this corner right here is actually part of
the channel known as a widener. If you zoom in, can you zoom in right here? I believe
it's shown on this chart. Yeah. So this – zoom in a little more, right there. There you
go. So this corner here is the widener. From these blue lines to this white triangle is
the widener.

Mr. Willett: Okay. Lieutenant Commander can you go to the next page. So this
product has 7 pages. So this would be -----

Mr. O'Kane: Yeah there you go.

Mr. Willett: Kind of a close up of the widener. These numbers, could you explain what 10 they mean?

- **Mr. O'Kane:** Yeah those are meters to the tenth.
- **Mr. Willett:** So for example right here it says 13 and there's a small 4.

Mr. O'Kane: 13.4 meters.

Mr. Willett: Okay. And when you completed your survey after Hurricane Dorian did

15 you guys local any anomalies or anything that might inhibit the shipping in the channel?

Mr. O'Kane: Negative. We looked, I guess just to dumb it down, the things we look for

- are objects, metal in the channel and shoaling. And we found no anomalies after
- 18 Dorian in the channel that were any concern from a navigation perspective.
- **Mr. Willett:** So if you had found something you would have published that out?
- **Mr. O'Kane:** Absolutely.
- **Mr. Willett:** How would you go about it?

- **Mr. O'Kane:** I think those stakeholders that I mentioned would have been our first start.
- 2 And then from there if there was a need for the public to have it we would have

3 continued on down that road.

- **Mr. Willett:** Captain Welborn I would like to enter these exhibits into the record.
- **CAPT WELBORN:** Yes Mr. Willett we will, you have two exhibits?
- **Mr. Willett:** It is a combined exhibit 7 pages.
- **CAPT WELBORN:** Understood. Objections from the Republic of Marshall Islands?
- **Republic of Marshall Islands:** No objections.
- **CAPT WELBORN:** Objections from NTSB? Captain Flaherty do you have any
- 10 objections to this?
- **NTSB:** No.
- **CAPT WELBORN:** Thank you very much. Any objections noted from KMST?

Recorder: None noted.

- **CAPT WELBORN:** Any objections from our PII's? The evidence is so admitted into the
- 15 record.
- **Mr. Willett:** Mr. O'Kane I would like to show you Exhibit 4A and B labeled odd sides
- 17 scan product. Mr. O'Kane do you recognize this work?
- **Mr. O'Kane:** Yes, sir.
- **Mr. Willett:** So how would this differ from the multi beam?
- **Mr. O'Kane:** So there are basically three types of technology we use in hydrographic
- survey. There's single beam, multi beam and sides scanned. Side scan is a more
- 22 picture oriented, it's not so much mathematical numbered depth soundings. So from
- the backed off from the higher resolution scale here we're looking at you really can't tell

- 1 much. But when you zoom in its kind of a side looking, hence the name side scan its
- 2 kind of a look sideways at the water column.
- 3 **Mr. Willett:** What date was this created?
- 4 **Mr. O'Kane:** The date will be right here.
- 5 **Mr. Willett:** So September the 6th, 2019?
- 6 **Mr. O'Kane:** Yeah.
- 7 Mr. Willett: The survey would have been through those dates, it says September the
 8 6th and September the 7th.
- 9 **Mr. O'Kane:** I believe the surveys were done on the 5th and the 6th and the 6th and 7th
- 10 represents the date they were processed. So the day it was collected in HIGH PAC the
- 11 day before, and it was processed into this PDF probably the next day. And that's
- 12 probably why NOAA put the next day on there.
- 13 Mr. Willett: Commander can you go to the next page?
- 14 **Mr. O'Kane:** Yeah there you go.
- 15 **Mr. Willett:** Can you zoom into that a little bit. So is this area representing Widener
- 16 11?
- 17 **Mr. O'Kane:** Yes.
- 18 **Mr. Willett:** So what does this show, these gray spot?
- 19 **Mr. O'Kane:** So can you zoom in a little more. Maybe zoom into, right about a little bit
- 20 here. Yeah. So just like the dirt road, quarter way to the wind, channel in the water, the
- bottom of the sub-straight ripple to the currents. So you can kind of see that here.
- That's what some of those lines are, is the bottom contours of the sand and sediment as
- it's little sand dunes kind of. This is NOAA does four passes one in each quadrant of

1	the channel. So each one of these is kind of a look from the centerline of the vessel
2	looking left and right. So if there's an anomaly it will show out as a definite dark – it will
3	be white hot, but behind it where the sonar can't it will be black from the shadow. So
4	since you don't see any of the definite black marks here I can tell that channel is clear.
5	Mr. Willett: So can you zoom out a little bit more. So this shows there were no
6	indications of any obstruction in the channel?
7	Mr. O'Kane: Correct.
8	Mr. Willett: And this was taken around the 5 th or the 6 th after Hurricane Dorian and you
9	processed it, and published it on this day?
10	Mr. O'Kane: Yes, sir.
11	Mr. Willett: Captain Welborn I would like to enter this exhibit into the record.
12	CAPT WELBORN: Roger. Any objection from the Republic of the Marshall Islands?
13	Republic of Marshall Islands: No objections Captain.
14	CAPT WELBORN: Any objections from NTSB?
15	NTSB: No objections.
16	CAPT WELBORN: Any objections from KMST?
17	Recorder: None received.
18	CAPT WELBORN: No objections received. From our PII's? The evidence is so
19	marked and entered into evidence.
20	Mr. Willett: I would like to state again this is Exhibit 4A/B. Mr. O'Kane were there any
21	surveys completed after the GOLDEN RAY incident?
22	Mr. O'Kane: Yes, sir. So the GOLDEN RAY incident was on the 8 th , correct? So on

the 9th we mobilized our team, that was a Monday and we did surveys, our, I guess our

1	primary goal at that point we coordinated with the stakeholders, Pilots, the Port
2	Authority and the Coast Guard and our biggest concern was could something have
3	came off this vessel or another vessel and been in the channel. An unknown water
4	hazard. So we did more side scan and multi beams around the vicinity of the ship and
5	it's course from the dock to the place it ended up resting.
6	Mr. Willett: If you recall, did those indicate any anomalies or anything else in the
7	channel at that waterway?
8	Mr. O'Kane: Those surveys indicated no obstructions or anomalies.
9	Mr. Willett: I would like to introduce Exhibit 5. It's called the post incident product. Mr.
10	O'Kane do you recognize this work?
11	Mr. O'Kane: I do.
12	Mr. Willett: Do you know the approximate date?
13	Mr. O'Kane: Uhh.
14	Mr. Willett: Commander can you zoom in to the top right?
15	Mr. O'Kane: I think it was the 11 th , but we'll know here in a second. Yep, September
16	the 11 th , 2019. So this was a different product that I was describing a minute ago. But
17	tell me what you want.
18	Mr. Willett: So we go back to Widener 11, that area. Can you zoom in a little bit? Can
19	you just explain to us what these numbers mean?
20	Mr. O'Kane: Sure. So this was two days later from the first surveys we did and in
21	coordination with the stakeholders with the same three I mentioned earlier, those were
22	are principle people we were talking to. We wanted to see how – what the bottom was
23	like in the vicinity of the GOLDEN RAY and also how it was positioned in relation to the

1	channel. So we set out with a very detailed, I guess goal of doing cross sections of the
2	channel to determine depth. So that's each one of these lines. If you zoom into any
3	one of those lines significantly you will see that's a series of numbers. Now these are
4	going to be in feet down to a tenth of a foot. And it's also color ram, or color coded. So
5	the blues indicate it is deep, as deep or deeper than authorized. So blue, even the baby
6	blues are good. And yeah, so that was one goal is to determine the depths. And the
7	other goal was to determine the exact location of the GOLDEN RAY.
8	Mr. Willett: Can you show us on this presentation where the GOLDEN RAY?
9	Mr. O'Kane: We drew this box approximating the location. We took, I think we took
10	three or four GPS coordinates on each corner as best we could approximate and those
11	in the boat, our boat into the – almost to the edge of the GOLDEN RAY. We created
12	this box using that, those points. And it rest about 150 feet from the bend Widener or
13	channel.
14	Mr. Willett: And again that's the Widener Sound?
15	Mr. O'Kane: 11?
16	Mr. Willett: Widener 11. Can you explain what this kind of bump is?
17	Mr. O'Kane: So there was probably a traffic, or I think there might be a buoy there. So
18	the boat was running line using single beam sonar technology. For some reason they
19	had to go out and around. I don't know if it was another vessel there or if it was a buoy
20	there. I think there's a buoy there.
21	Mr. Willett: Okay.
22	Mr. O'Kane: But I would have to lay it over a nav, a proper nav chart that has the
23	navigational buoys to know that one.

- Mr. Willett: Can you zoom a couple more times? So each of these shows a pass of a
 vessel when we would use sonar to indicate -----
- 3 Mr. O'Kane: Exactly. Those depths represent a line center of that. It would be that the
- 4 actual course of the boat as it transected the channel to get those depths.
- 5 Mr. Willett: And the blue would indicate that it's deeper than projected, or?
- 6 **Mr. O'Kane:** At least as deep as authorized.
- 7 **Mr. Willett:** And what was this area authorized for?
- 8 **Mr. O'Kane:** This is part of the 36 foot channel.
- 9 **Mr. Willett:** So any time there's blue it would be at least?
- 10 **Mr. O'Kane:** 36 feet deep. And I would have to consult with color rams, I think it's on
- 11 this somewhere else on the drawing to be sure of the other colors. But we try to we
- 12 try to calibrate the color ram the colors for that particular channel. So usually blue is
- 13 good.
- 14 **Mr. Willett:** So I see here there are some greens that indicate 37.6.
- 15 Mr. O'Kane: Yep. So your -----
- 16 **Mr. Willett:** And there's some blacks that are 35.7. And then orange and red.
- 17 **Mr. O'Kane:** Right. As you come out of the channel it gets shallower toward the
- 18 shallower banks.
- Mr. Willett: Does this product indicate that the channel still had proper depth after theincident?
- 21 **Mr. O'Kane:** Absolutely. I mean there's a lot 50's in this area. And even coming back
- into the Southwest those deep, naturally deep numbers continue.

Mr. Willett: You indicated earlier that this was a different product. So this was a sonar
 product, is that correct?

Mr. O'Kane: Right. So what we did on the 9th was a side scan mostly looking for
 objects that fell off the boat or another boat. What we did on the 11th, this is single
 beam and we did that for a very precise measurements of depth.

- 6 **Mr. Willett:** Now the surveys that you completed on the 8th and 9th, did those indicate
- 7 anything about the channel, I guess the 9th when you said you got started on your
- 8 survey, did any of those surveys indicate any objects or obstructions in the channel?
- 9 **Mr. O'Kane:** No, sir.
- 10 **Mr. Willett:** Captain Welborn I have no further questions.
- 11 **CAPT WELBORN:** Thank you Mr. Willett. So we'll move on to our substantially
- 12 interested states and our parties in interest to see if they have any questions for you.

13 Mr. Bremer?

- 14 **Mr. Bremer:** Yes, sir, how are you today?
- 15 **Mr. O'Kane:** I'm well.
- 16 **Mr. Bremer:** So Widener 11 you mentioned that it's not included in your typical survey

17 of the waterway. Is that going to be a required regime?

18 **Mr. O'Kane:** No, sir. Widener 11 does not require dredging. If you notice a lot of those

- 19 numbers were well over the 36 foot authorized depth and it's a naturally scouring area
- and the Vin Widener is part of that naturally scouring area and we do not have to

21 dredge it.

- 22 Mr. Bremer: Okay. And the transition from the Jackal Island Range into Widener 11
- 23 you had mentioned that Widener 11 is typically deeper in the control depth of the

- 1 channel. How would you describe that transition? Is it a sudden change or a gradual
- 2 change in depth as that transition is made?
- 3 **Mr. O'Kane:** Right. It's pretty gradual. You can study the surveys and see how
- 4 gradual it is, but it's not an abrupt change.
- 5 **Mr. Bremer:** Okay.
- 6 **Mr. O'Kane:** It's gradual.
- 7 **Mr. Bremer:** Okay, thank you. No further questions.
- 8 **CAPT WELBORN:** Thank you Mr. Bremer. NTSB do you follow-on questions for this
- 9 witness?
- 10 **NTSB:** Captain Welborn yeah I just have a couple of questions. Captain Welborn.
- 11 **CAPT WELBORN:** Yes.
- 12 **NTSB:** Sir, what is the bottom? Is it a soft bottom or is there rocks in the area?
- 13 Mr. O'Kane: So there are no rocks. There are some limestone areas in Brunswick
- 14 Harbor. This particular area is, I believe it's mostly sand, silt. So it's relatively soft.
- 15 We've never dredged this. It's in the 50's naturally, so. A lot of the when I say never,
- 16 you can look at the survey and tell. If it's in the 50's we've never dredged it. It's
- 17 naturally that deep. We only -----
- 18 **NTSB:** The area, I believe this area is a stable bottom.
- 19 **Mr. O'Kane:** Yes very stable.
- 20 **NTSB:** Now is there where does silt come in and fill up the area? Is it coming down
- 21 river? Is there an exchange outside?
- 22 **Mr. O'Kane:** So the Brunswick River is not a big watershed so there's not a lot of inflow
- from upstream in the watershed. It comes in from the North and South of the Sound.

1 There's an intercostal waterway and other tributaries that come into St. Simon Sound. 2 And there's also with our, you know we have almost a 7 foot tide every, you know twice 3 a day. So those tides bring in sediment from the ocean as well. So generally there's 4 sediment coming in from four different directions depending on what tide cycle you're 5 on. 6 **NTSB:** Okay. When your conducting your surveys following the casualty was any of 7 your equipment able to pick up the area where the vessel grounded? 8 Mr. O'Kane: So yes we did a separate survey that's not shown in the exhibits we've 9 seen so far where we did multi beam, kind of a horizontal multi beam and we got a lot of 10 the depths around the GOLDEN RAY. We were trying to get a feel for how much of the 11 stern of the vessel was hanging out off of the sandbar looking at the stability of the 12 vessel. So when we did that we did get a lot of the depths and profiles of the shallower 13 area that the vessel came to rest on. **NTSB:** And there's no indication from your equipment that the vessel came into contact 14 15 with the bottom while in Sound? 16 Mr. O'Kane: No, sir. 17 **NTSB:** Are you relying other than information on the survey [in audible]. Mr. O'Kane: We can. I'll be happy to do that. 18 19 **NTSB:** Captain Welborn recommend if we could obtain that for our records. 20 **CAPT WELBORN:** Roger we will obtain that.

21 **NTSB:** I have no further questions, thank you.

1	CAPT WELBORN: Thank you Mr. Flaherty. So we have no questions from Republic of
2	Marshall Islands, NTSB has finished their questioning. We have no follow on questions
3	from KMST.

4 **Recorder:** No follow on questions.

5 **CAPT WELBORN:** Roger. Okay. Mr. O'Kane I do have a couple questions for you.

6 Just MST2 could you bring up Exhibit 5 please.

7 **Recorder:** I have the control.

8 **CAPT WELBORN:** Oh I'm sorry, I'm sorry. Can you zero in on the Northern part of

9 Widener 11 please? Mr. O'Kane you said that if the numbers were in blue, your

10 testimony was that if the numbers are in blue then they exceed the project depth and in

subsequent testimony you said that was 36 feet, is that correct?

12 **Mr. O'Kane:** Yes, sir.

CAPT WELBORN: Okay. So there's a couple shades of blue here. There's a dark
 blue and a light blue. Which one actually exceeds the project depth? The dark, the
 light or both?

16 **Mr. O'Kane:** The project depth here is 36 feet. Could we back out and go to the color

17 ram? The color legion? Not that's a different image, that's a different product, a

different ram. The legion must be on a different exhibit. So if you can zoom into that

area we can actually read the numbers. Find a baby blue area and zoom in. So it looks

20 like baby blue is from 44 to 40 feet. So anything you see in baby blue is between 40

and 44 feet in depth.

CAPT WELBORN: Okay, thank you. And can you zoom back out a little bit. One
 more. And one more. Pull that to the right just little. Okay. So Mr. O'Kane given the

1	colors of the light blue and the dark blue and the approach on the left side there leading
2	up, so up to the right upper corner into Widener 11 through Widener 11 and then exiting
3	Widener 11 do you see any numbers in there that would indicate that a ship drafting 30
4	feet, do you see any indication that a ship would run aground in any of those spaces?
5	Mr. O'Kane: No, sir.
6	CAPT WELBORN: Let the record reflect that the witness said no. So this survey you
7	said was taken on September 11 th , three days after the GOLDEN RAY ran aground.
8	Mr. O'Kane: Yes, sir.
9	CAPT WELBORN: Okay. Do you know or have you seen in your position substantial
10	changes to this waterway that could potentially occur over a three day period?
11	Mr. O'Kane: No, sir.
12	CAPT WELBORN: Do you see scouring that just appears over a very short period?
13	Mr. O'Kane: No, sir.
14	CAPT WELBORN: Okay so this representation of the waterway taken three days after
15	the grounding, would that be an accurate representation of what the waterway looked
16	like on the 8 th ?
17	Mr. O'Kane: Yes.
18	CAPT WELBORN: In your opinion.
19	Mr. O'Kane: Yes, sir.
20	CAPT WELBORN: Okay. Alright any other questions SIS's, PII's?
21	WIT: No questions.
22	CAPT WELBORN: Thank you, sir. I do appreciate it. Okay Mr. O'Kane we do
23	appreciate you coming out today. Thank you so very much. We do reserve the right to

1	recall you through the end of the hearing, which will be sometime next week. So we
2	would appreciate it if you remained available. Thank you, sir. The witness is dismissed.
3	At this time the local time is 1:03. We have completed with our witnesses for today. So
4	at this time the hearing stands adjourned until tomorrow the 16 th of September.
5	The hearing adjourned at 1:03, 15 September 2020.
6	CAPT WELBORN: So we're back on the record at 1:05. My mistake we actually have
7	a little bit more business to attend to. Mr. Willett did you want to include Exhibit 5 on the
8	record?
9	Mr. Willett: I did.
10	CAPT WELBORN: Okay. So any objections from our SIS's.
11	WIT: No objection.
12	CAPT WELBORN: No objection. Republic of Marshall Island, NTSB, any objections?
13	None heard we will check with NTSB. Any objection from KMST?
14	Recorder: No objection.
15	CAPT WELBORN: No objection from KMST. PII's any objection?
16	WIT: Let me check.
17	CAPT WELBORN: Yes, sir. Standing by we will come back to that.
18	WIT: No objection.
19	CAPT WELBORN: Thank you very much. No objection from the PII's regarding Exhibit
20	5. So today, we heard from Mr. Steve Farley, the lead foreman of the Brunswick
21	stevedores. He spoke about unloading and loading RORO ships in general and
22	specifically, on the GOLDEN RAY and where vehicles were stowed on the GOLDEN
23	RAY. He also discussed the lashings in use on the GOLDEN RAY and how they were

1	strapped to the vehicles on the GOLDEN RAY. If you wish to see photographs of the
2	lashings on the GOLDEN RAY prior to the incident, please refer to CG Exhibit 01
3	presented during yesterday's session. It is available to the public in the media news
4	room.
5	Second we heard from Mr. Jason O'Kane, Chief of Navigation in the U.S. Army Corps of
6	Engineers. He spoke about surveys done in the Brunswick Harbor to determine if any
7	objects had fallen off the GOLDEN RAY after the incident and the depth of the water
8	through which the GOLDEN RAY transited. Coast Guard Exhibit 3 A/B; Coast Guard
9	Exhibit 4 A/B; and Coast Guard Exhibit 5 were entered into the record, which included a
10	combined multibeam product, a sidescan product, and a post-incident product creation
11	created by the U.S. Army Corps of Engineers.
12	Should any person have, or believe he or she has information not brought forward but
13	which might be of direct significance, that person is urged to bring that information to my
14	attention by emailing: USCGGoldenRay@gmail.com.
15	During tomorrow's session, we will be hearing from Mr. Michael Mavrinac of Hyundai
16	Glovis; Mr. Samy Maatki [SAMMY MAHT-KEY] of Norton Lilly; and Mr. Hyun Jip Choi
17	[HI-YUN GIP CHOY] of G-Marine. Thank you again for attending today. It is now 1:07,
18	hearing session day two is now adjourned.
19	The hearing adjourned at 1:07, 15 September 2020.