



National Transportation Safety Board

Washington, D.C. 20594

February 11, 2020

Frank English
Manager of Fleet Operations
Ride The Ducks Branson
Branson, Missouri

Re: Tech review of the Survival Factors Group Factual Report

Frank:

The NTSB investigative team has reviewed all factual comments submitted by the parties as part of the technical review and has decided on a disposition for each one, as reflected below. All editorial suggestions have been considered and will be incorporated as appropriate.

The deadline for providing party submissions pursuant to 49 CFR 831.14 is February 14, 2020.

Thank you and best regards,

Brian Young
Investigator in Charge
National Transportation Safety Board
490 L'Enfant Plaza, S.W.
Washington, DC 20594

NATIONAL TRANSPORTATION SAFETY BOARD
 OFFICE OF MARINE SAFETY
 WASHINGTON, D.C. 20594



ERRATA - RTD

Group Chairman’s Factual Report Survival Factors

Stretch Duck 7 DCA18MM028

Page/Line	Original	Correction	NTSB Disposition
2/30-32	Due to the approaching weather, before departing the shoreside boarding facility the crew of two was instructed to bypass the land-based portion of the tour and head directly to the lake.	This language leaves out certain facts, is ambiguous, and needs clarification. The use of the word “bypass” incorrectly suggests that a decision was made not to perform part of the land-based portion of the tour. The record reflects that the captain and driver intended to take the entire tour, but a decision was made to take the water portion of the tour first. The language “the crew of two” is ambiguous, but instead the terms “captain and driver” are more accurate. Finally, the transcript of Captain McKee also makes clear that the captain had reviewed the weather just prior to the tour, and just prior to the issuance of the severe thunderstorm warning. The description of these events, as written, omits that fact, suggesting that Captain McKee was simply following the suggestions of the MOD.	Update paragraph to read: “Prior to the accident, the National Weather Service had issued a severe thunderstorm warning for the area advising of wind gusts of 60 mph. The manager-on-duty advised the captain and driver before departing the shoreside boarding facility to complete the lake portion of the tour before the land tour (which normally occurred first) due to the approaching weather. Additional details about the sequence of events

		<p>To be more accurate and complete, we request this language be revised to read as follows:</p> <p>“Just prior to the issuance of the severe thunderstorm warning issued at 6:32 PM, the Captain of the <i>Stretch Duck 7</i> reviewed the weather on a weather monitor at the company’s Branson headquarters. Due to the approaching weather, before departing the shoreside boarding facility, the captain and driver were advised to complete the lake portion of the tour first before the land- based portion of the tour.”</p>	to be included in the accident narrative.
2/32-34	About 5 minutes after the vessel entered the water from the south ramp, a “derecho” passed through the area generating 2- to 4-foot waves, with the highest wind gust recorded at 73 mph.	<p>A senior deckhand on the Showboat Branson Belle as well as the driver of the <i>Stretch Duck 17</i> testified in their NTSB interview that they observed up to 5 foot waves. <i>See</i> Transcript Womack at page 6; Marotti at page 21. In his September 9, 2019 deposition, the senior deckhand on the Showboat Branson Belle testified that sustained waves were up to 6 feet, characterizing the waves as “huge” and “continuous.” We have attached to this errata sheet an excerpt of the deposition of the senior deckhand of the Showboat Branson Belle from the civil proceedings. <i>See</i> Attachment A, Deposition Transcript Womack at pages 73-74. To be more complete and factual, we request that this language be modified to more precisely reflect the record in regard wave height as follows:</p> <p>“About 5 minutes after the vessel entered the water from the south ramp, a “derecho” passed through the area generating waves estimated by witnesses to be 2- to 6- feet, with the highest wind gust recorded at 73 mph.”</p>	<p>Based on interviews NTSB conducted, waves were estimated to be 3-5 feet. NTSB did not participate in civil proceedings and does not have access to these transcripts. <i>Showboat Branson Belle</i> relief captain interview 7/21/18 pg. 13, line 24 – “guesstimate it about 3 feet”</p> <p><i>Showboat Branson Belle</i> senior deckhand interview 7/21/19 pg. 6 “about a 5-foot wave went over the top of the rescue boat”</p> <p>Update sentence to read: “About five minutes after the vessel entered the water from the south ramp, a “derecho” passed through the area generating waves estimated by witnesses to be 3- to 5- feet, with the highest wind gust recorded at 73 mph.”</p>
3/14-15	Currently only states: “... not more than one thousand	We believe this is an incomplete statement of the facts. The COI reads in full: “Limited to: Table Rock Lake and Lake	Updated language:

	(1,000) feet from shore.”	Taneycomo; not more than one thousand (1,000) feet from shore unless a VHF marine band radio is properly installed and licensed by the FCC.” For clarity and completeness, we request the following be inserted: “...not more than one thousand (1,000) feet from shore unless a VHF marine band radio is properly installed and licensed by the FCC. <i>Stretch Duck 7</i> did have a properly installed and licensed VHF marine band radio.”	...not more than one thousand (1,000) feet from shore unless a VHF marine band radio is properly installed and licensed by the FCC.” The <i>Stretch Duck 7</i> had a radio that met the criteria.
3/19	“certificate of inspection”	“Certificate of Inspection”	Certificate of inspection is not capitalized in NTSB reports
3/24	“certificate of inspection”	“Certificate of Inspection”	Certificate of inspection is not capitalized in NTSB reports
4/12-13	“Navigation and Inspection Circular”	“Navigation and Vessel Inspection Circular”	Corrected.
13/17	“PFD’s”	“PFDs”	Corrected.
14/11-14	Operators using curtains on duck boats had to install the curtains in a manner that would allow escape from the vessel without impeding passenger egress.	The language is currently unclear regarding the source of the requirement for the emergency release of curtains, and it is also not clear in the report that <i>Stretch Duck 7</i> satisfied these standards. Accordingly, we request that the following sentence be added at line 14: “Coast Guard NVIC 1-01 contains general guidelines and standards for implementation of this requirement. The emergency curtain release arrangement on <i>Stretch Duck 7</i> satisfied these standards and was approved by the Coast Guard.”	Section 10, explains that NVIC 1-01 is the source of the standard and that the CG accepted the installation (Page 14, line 15).
14/FN 5&6	Quote from Abandon ship procedure for SD7	As for footnote 5, to make it clear that this quoted language is from the Operations Manual, we request this be changed to: “Quote from abandon ship procedure in the Operations Manual for the SD7.”	Updated report with the following text: Quote from abandon ship procedure in the Operations Manual for the <i>Stretch Duck 7</i> .

		Also, it does not appear that footnote 6 references any language in quotations, and there appears to be a duplicate, unnecessary footnote. We believe it should be removed.	Note: Foot notes in factual report will be removed. They were placed in the party draft to direct party reps to the source of the information and quotes.
14/16	To comply with the NVIC 1-01 guidelines and receive Coast Guard acceptance of the curtain installation, portions of the curtain on <i>Stretch Duck 7</i> could be released such that it dropped from where it was attached to the top of the canopy frame.	It is unclear what is meant by “portions of” the curtain on the <i>Stretch Duck 7</i> could be released. It appears use of this language is intended to convey only the side curtains had an emergency release. If this is the case, we respectfully request that the term “portions of” be removed, or that the language be modified as follows: “To comply with the NVIC 1-01 guidelines and receive Coast Guard acceptance of the curtain installation, the main side curtain in the passenger area on <i>Stretch Duck 7</i> could be released such that it dropped from where it was attached to the top of the canopy frame.”	Updated report with the following text: To comply with the NVIC 1-01 guidelines and receive Coast Guard acceptance of the curtain installation, the main side curtain in the passenger area on <i>Stretch Duck 7</i> could be released such that it dropped from where it was attached to the top of the canopy frame.
14/17	A handle on the port side near the captain’s station released a curtain on the port side that extended from just behind the operator to the passenger entrance on the vessel, near the stern.	The use of the phrase “near the captain’s station” is imprecise and could be misinterpreted. We request this be change to: “in the captain’s station” or “at the captain’s station”	Updated report with the following text: A handle on the port side at the captain’s station released a curtain on the port side that extended from just behind the operator to the passenger entrance on the vessel, near the stern.
14/23-24	When investigators examined the recovered <i>Stretch Duck 7</i> , they found the starboard curtain in place and the large port side curtain disconnected as if it had been released.	We believe the language “as if it had been released” is somewhat vague, subject to interpretation, and unnecessary. Also, the language “large port side curtain” may be misinterpreted to mean that the port side curtain was larger than the starboard side curtain, which is not the case. We understand your use of the word “large” is intended to distinguish between the main side curtains on either size of the vessel in the passenger area, with the separate smaller curtains near the captain’s station. To be more factual and accurate, we request that this language be revised as follows:	Updated report with following text: “When investigators examined the recovered <i>Stretch Duck 7</i> , they found the main starboard curtain in the passenger area in place, and the main port side curtain in the passenger area disconnected and released. The Captain of the <i>Stretch Duck 7</i> informed investigators he had

		<p>“When investigators examined the recovered <i>Stretch Duck 7</i>, they found the main starboard curtain in the passenger area in place, and the main port side curtain in the passenger area disconnected and released. The Captain of the <i>Stretch Duck 7</i> informed investigators he had released one of the side curtains, and this account was corroborated by passenger statements.”</p>	<p>released one of the side curtains, and this account was corroborated by passenger statements.”</p>
17/3	“certificate of inspection”	“Certificate of Inspection”	Certificate of inspection is not capitalized in NTSB reports
18/7-12	The list of training items, each line signed off by a trainer, did not include the “Severe Weather on the water” emergency procedure.	<p>As written, this language is unclear and could be interpreted to mean that the water training log sheet for Captain McKee, dated February 19, 2018, was missing a signature for “severe weather on the water.” We believe the intent of this language was instead to reflect that the log sheet itself did not have a place to sign off on a training item labeled “severe weather.” We believe this language needs clarification.</p> <p>More broadly, in our view, the description of RTD’s training program in lines 7-12 is not complete, and is not a fair and full statement of the factual record regarding the training that the Captain McKee had received with respect to responding to severe weather on the water.</p> <p>While the water training log sheet did not have “severe weather” specifically listed as a line item for the trainer to sign, the record demonstrates that instruction on severe weather response was in fact covered in this training (and in the Captain’s course and in periodic safety meetings). The water training log for February 19, 2018 indicates Captain McKee completed all of the emergency response training in the log sheet, and all the skills assessment training with the exception of VHF security call. This included signoffs for training on emergency response to a bilge alarm, abandon</p>	<p>Updated report with following text:</p> <p>As recently as February 19, 2018 the captain completed an on-water training session listing 16 different emergency response training topics, including: bilge alarm, abandon ship, hull breach, intentional grounding, and emergency egress procedures, among others. This record of training was signed and dated by the designated captain trainer and indicated that proper training was completed on the safe operation of RTD vehicles.</p> <p>While “severe weather on the water” was not specifically included among the listed training topics requiring a signature by the trainer, the majority of the training topics covered addressed and tested the operational competencies for responding to severe weather. Additionally, this</p>

ship, hull breach, intentional grounding, and emergency egress procedures, among many other emergencies. It also included a skills assessment of his knowledge of COI restrictions, among other areas. All of these emergency training scenarios -- and the competencies needed to perform operational procedures associated with them -- are relevant and implicated in training for "severe weather on the water." For example, virtually every response action for responding to a bilge alarm -- a specific training line item that is on the water training log -- is included in the response actions for responding to severe weather. The one step not included in the bilge alarm response procedures is for the captain to close the hood of the engine compartment if there is significant wave action (which the record reflects Captain McKee in fact did in response to the weather conditions). Several Captains explained in their testimony that the annual refresher training did cover on-water severe weather response, because scenarios involving severe weather were incorporated into other topics and scenarios covered in the annual refresher training. *See e.g.* Transcripts Covert at p. 17; King at p. 50; Davidson at p. 18-19; Lanham at p. 36.

Furthermore, Captain McKee was designated to provide water training for the drivers/deckhands, which included training on response actions in connection with severe weather on the water. *See* Unit 6.1 of CDL Training Curriculum. Thus, not only did Captain McKee receive training on severe weather instruction under the training program in place, as one of the most experienced captains, he actually administered this on-water severe weather training to CDL driver/deckhand trainees.

There is an unexplained gap in reference to training records for Captain McKee between 2010 and 2018, which might be

training also included training on COI operational restrictions, which also addressed aspects of severe weather, including operational wave and wind speed restrictions included on the COIs for the vessels. The captain of the *Stretch Duck 7* was also a designated trainer responsible for administering on-water training to CDL driver/deckhand trainees on various emergency response topics, including responding to severe weather on the water. Similar records of training were provided dating back to at least 2011, showing the captain of the *Stretch Duck 7* had regularly completed this training

Did not add:

"and several witnesses testified that aspects of severe weather are addressed and incorporated into these training topics and scenarios."

"Additional training records are relevant to the captain of the *Stretch Duck 7*'s competency in responding to severe weather."

used to incorrectly suggest a lack of training during that time period. Therefore, we also believe it is fair and accurate to include reference to other applicable training records available for Captain McKee for the period between 2018 and 2018.

We have no objection to the language in footnote 8.

For all of the above reasons, we respectfully request that the language in lines 7-12 be replaced with the following:

“As recently as February 19, 2018 the captain signed a “Water Training Log” listing 16 different emergency response training topics, including: bilge alarm, abandon ship, hull breach, intentional grounding, and emergency egress procedures, among others. This record of training is signed and dated by the designated captain trainer.

While “severe weather on the water” is not specifically included among the listed training topics requiring a signature by the trainer, the majority of the training topics covered address and test the operational competencies needed for responding to severe weather, and several witnesses testified that aspects of severe weather are addressed and incorporated into these training topics and scenarios. Additionally, this training also included training on COI operational restrictions, which also addressed aspects of severe weather, including operational wave and wind speed restrictions included on the COIs for the vessels, as set forth in further detail below. Finally, the captain of the Stretch Duck 7 was a designated trainer responsible for administering on-water training to CDL driver/deckhand trainees on various emergency response topics, including responding to severe weather on the water. Similar records of training were provided dating back to at least 2011, showing

		<p>the captain of the Stretch Duck 7 had regularly completed this training.</p> <p>Additional training records are relevant to the captain of the Stretch Duck 7's competency in responding to severe weather."</p>	
19/23	"...was to train captains an individual with little or no sea service on...."	This sentence is unclear to us. To address this, we recommend removal of the word "captains" or, alternatively, change to "train as captains".	<p>Updated text to read:</p> <p>"...was to train as captains an individual with little or no sea service on safe operation of a very unique amphibious vehicle..."</p>
19/25	only"	Recommend removing this quotation mark.	Corrected
20/fn12	"RDT"	"RTD"	Corrected: Note footnote only for party review...All simple footnotes referencing the location of the factual information will be removed from version posted to the docket.
20/9	Requested supplemental facts.	<p>We believe the draft factual report does not contain a complete description of the training program at RTD, as it does not discuss the monthly safety meetings in which various safety training topics are covered, including training on responding to on-water emergencies. <i>See e.g.</i> Transcripts Purma at pages 16-17; Aldridge at pages 14-15. In addition, we believe that the emergency response training that is conducted during Coast Guard COI inspections should also be discussed in the factual report. <i>See e.g.</i> Transcripts CWO Hoesli at pages 26-28; CWO Massey at pages 30-31. In fact, one of the Coast Guard inspectors conducted emergency response training with Captain McKee in April 2018, onboard the <i>Stretch Duck 7</i>. <i>See</i> Transcript CWO Massey at pages 30-31. We believe these are relevant facts</p>	<p>Updated text to read:</p> <p>In addition to the training above, periodic training on emergency response procedures on the water, and other safety topics, was conducted during monthly safety meetings which all captains and other personnel were required to attend. In addition, during U.S. Coast Guard COI inspections, emergency response training is conducted and observed by Coast Guard inspections as part of annual examinations of the vessels.</p>

		<p>that should be included in the factual report to fully and accurately describe the training program. Accordingly, we request that the following language be added to the draft report at page 20, line 9:</p> <p>“In addition to the training above, periodic training on emergency response procedures on the water, and other safety topics, was conducted during monthly safety meetings which all captains and other personnel were required to attend. In addition, during U.S. Coast Guard COI inspections, emergency response training is conducted and observed by Coast Guard inspections as part of annual examinations of the vessels. In April 2018, a U.S. Coast Guard inspector conducted this on-water emergency response training with the captain of the <i>Stretch Duck 7</i>.”</p>	<p>In April 2018, a U.S. Coast Guard inspector conducted this on-water emergency response training with the captain of the <i>Stretch Duck 7</i>.</p>
22/1-2	<p>A review of the onboard video and audio recorders showed that between 1903:23.2 and 1905:48.2, the captain hailed the duck dock four times by radio and did not receive a response.</p>	<p>We have requested from the NTSB a copy of the onboard video, audio, and/or transcript from the accident voyage for the <i>Stretch Duck 7</i>, but our request was denied. Accordingly, as a general matter, we cannot comment on the various references to the onboard video and audio here and elsewhere in the draft reports. However, based on the facts and evidence available to us, we believe the language at lines 1 and 2 should be amended. We believe it is more factual and accurate to say that “no response could be heard on the audio recording” rather than he “did not receive a response.”</p> <p>Though he was not interviewed by the NTSB, we are aware that the lead mechanic, Chris Miller, heard the captain of <i>Stretch Duck 7</i> make two calls on the radio. At the time, Mr. Miller was driving after having responded to the mechanical problems on the <i>SD26</i>. Mr. Miller stated that the call came in on channel 1 (company repeater), and he heard Captain McKee’s voice say “duck 7 to shop.” Because he was driving</p>	<p>Updated text:</p> <p>A review of the onboard video and audio recorders showed that between 1903:23.2 and 1905:48.2, the captain hailed the duck dock four times by radio and did not hear or receive a response.</p> <p>Did not add:</p> <p>A mechanic driving the <i>Stretch Duck 26</i> back to the shop heard the captain of the <i>Stretch Duck 7</i> make two radio calls. After the second radio call, the mechanic returned the call to <i>Stretch Duck 7</i> to see what he needed, but he did not receive a response from <i>Stretch Duck 7</i>. Other Ducks were</p>

		<p>at the time, and because others were back at the shop, he did not respond to the first call out. After a second call out came in a few minutes later, Mr. Miller responded to Captain McKee, but did not receive a response back. Mr. Miller states he heard no further call outs from Captain McKee. This account is corroborated from the onboard footage of from the SD26, which unlike the SD7 video, we have access to. Mr. Miller could also be heard communicating with the duck dock during this time frame.</p> <p>Additionally, we believe it is relevant that other RTD personnel also had been able to communicate with the duck dock during this general time frame, and should be noted. See e.g. Transcript Aldridge at p. 27.</p> <p>Accordingly, we request the language be amended as follows:</p> <p>“A review of the onboard video and audio recorders from the Stretch Duck 7 showed that between 1903:23.2 and 1905:48.2, the captain hailed the duck dock four times by radio and no response could be heard on the recordings. A mechanic driving the Stretch Duck 26 back to the shop heard the captain of the Stretch Duck 7 make two radio calls. After the second radio call, the mechanic returned the call to Stretch Duck 7 to see what he needed, but he did not receive a response from Stretch Duck 7. Other Ducks were able to communicate with the duck dock during this general timeframe.”</p>	<p>able to communicate with the duck dock during this general timeframe.</p> <p>Note: NTSB does not have the transcript of <i>SD26</i>.</p>
22/2	“response At”	“response. At”	Corrected.
end			

