



National Transportation Safety Board

Washington, D.C. 20594

Office of Marine Safety

February 28, 2018

Mr. Gustavo Abaroa
General Director - DPA
Baja Ferries S.A. de C.V.
Ave. Emilio Barragan y Prolongacion Carnaval s/n, Fracc.
Playa Sur, Mazatlan, Sinaloa, Mexico

Re: Technical review of the survival factors factual report related to the *Caribbean Fantasy*

Dear Mr. Abaroa:

The NTSB investigative team has reviewed all technical review comments submitted by Baja Ferries S.A. de C.V. related to the survival factors factual report on the *Caribbean Fantasy* casualty. Below is a disposition of the each of the comments.

All editorial suggestions have been considered and will be incorporated as appropriate.

Sincerely,

A black rectangular redaction box covers the signature of Adam Tucker.

Adam Tucker
Investigator-in-charge
National Transportation Safety Board
490 L'Enfant Plaza, S.W.
Washington, DC 20594

| Caribbean Fantasy | | | | |
|-----------------------------|-------|-----------------------|--|---|
| Report for Technical Review | | | | |
| No. | Party | Page/ Line | Party Comments | NTSB - Disposition of party comments |
| 1 | Baja | 15/7 | Reads: ...the best position and angle to expedite evacuation. Our Comment: ...the best position to expedite evacuation. The Viking MES Manual does not mention angle. | Removed "and angle" from line 7. |
| 2 | Baja | 19/18 | Reads: He said using the bowsing line to stretch out the slide and bring it along the side of the ship may have corrected the slide's vertical angle. Our Comment: This statement, if indeed made by the Staff Captain, is speculative in nature. The idea that the bowsing line can be used to correct the MES' vertical angle is not found in the manual from Viking. The bowsing line works about 90° or perpendicular to the slide's axis, therefore, pulling on the bowsing line will bring the platform and slide to the ship's side only. | No change. This sentence was based on what the Staff Captain said in his interview on August 24, 2016 (Page 43) and Day Two of the Marine Board of Investigation on 3/21/2017 (Page 71). All information included in the Group Factual report may be included in the NTSB's analysis of the accident. |
| 3 | Baja | 20/14 | Reads: ... a Coast Guard small boat crew, at the Caribbean Fantasy captain's request, used a line attached from the MES platform to the bow of the small boat to pull the platform forward and improve the alignment of the slide. (See Group Chairman's Factual Report - Operations figures 14 and 16). Our Comment: This action was a reaction to try to get a better alignment of the slide. The alignment of the slide is achieved with the internal pressure of the inflatable chambers which, for some reason Viking itself could not explain, did not work properly. The Viking MES Manual does not indicate that the MOB is to be used in any way to keep or improve the MES alignment. | No Change. All information included in the Group Factual report may be included in the NTSB's analysis of the accident. |
| 4 | Baja | 28/10-30; 29/ 1-11 | Reads: SOLAS regulation 30 required a weekly abandon ship drill ... Our Comment: ... Here we wish to go back to our comments to the factual report of the Operations Group: (No. 1 1): "Drills are conducted in a regular basis, and when more than 25% of Crew rejoined the vessel this happened before Port State Control." | No Change. |

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| 5 | Baja | 37/4 | <p>Reads: ...SOLAS Chapter III/ Part B...</p> <p>Our Comment: ...The entire paragraph, lines 4-13 is totally at odds with the NTSB Operations Group factual report, p.12-13 as to all the things that are covered in the briefing, and the applicability of the SOLAS requirement.</p> | <p>No Change. SF Group factual describes what SOLAS requires. Page 12-13 of the Operations Group Factual describes what witnesses said took place.</p> |
| 6 | Baja | 42/10 | <p>Reads: ... There was evidence that lifeboat No. 1 engine had been under repair ...</p> <p>Our Comment: The lifeboat was sitting pier side for a month under custody of investigation agencies. Schat Harding inspected the lifeboat a month after the incident. It is not possible to discard that someone may have tampered with the boat during the period that it was laying on the pier, or that the investigation agencies conducted preliminary inspections which could have included dismantling of boat' s components.</p> | <p>No Change. Comment noted.</p> |
| 7 | Baja | 47/3 | <p>Reads: The team evaluated nine failure modes and could not identify a root cause(s).</p> <p>Our Comment: If the Viking team was not able to establish root cause, NTSB should not credit Viking' s speculative comments on possible causes.</p> | <p>No Change. All information included in the Group Factual report may be included in the NTSB's analysis of the accident.</p> |
| 8 | Baja | 47/Table 1, third failure mode | <p>Reads: Inspection and testing of the reduction valves showed that the valves leaked during inflation due to leaking failure gaskets, which was concluded to be a contributing factor.</p> <p>Our Comment: The Viking conclusions appear to be speculation. If NTSB will credit Viking's conclusions on possible cause(s), then this factor was not discussed with the same emphasis as the alleged effect of not pulling the bowsing line. Moreover, the party in interest was not invited to participate , and has no idea as to who performed the test described in the Third, Fourth and Fifth modules; or when and where these were performed . These tests were not witnessed by the party in interest.</p> | <p>No Change. All information included in the Group Factual report may be included in the NTSB's analysis of the accident.</p> |

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| 9 | Baja | 47/Table 1, Eight failure mode | Reads: Slides may have buckled if the vessel was making way through the water and the bowing lines were not used. Our Comment: This seems to be conjecture and does not follow from the known facts. If the vessel was making way and the bowing lines were used, it is difficult to say or make the prediction that the slide could be used or would not buckle. | No Change. All information included in the Group Factual report may be included in the NTSB's analysis of the accident. |
| 10 | Baja | 48/1 | Reads: The Viking team could not determine why some of the liferafts were "floating around, not connected with the connection lines" The team noted that the rafts were not installed by an authorized Viking service technician and offered two possible causes: Our comment: If Viking could not determine why the liferafts were floating around, not connected to the lines, then any further discussion would be speculation without support or analysis. | No Change. All information included in the Group Factual report may be included in the NTSB's analysis of the accident. |
| 11 | Baja | 50/8 | Reads: Investigators learned that the dogs had been placed there by crewmembers who were positioning them on the vehicle decks for their owners in advance of debarkation. Our Comment: We know that two dogs were placed there at owners' request. All of the other dogs which were in the ship's kennel survived. | No Change to Factual Report. |
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From: [Gustavo Abaroa Galvez](#)
To: [Tucker Adam](#)
Cc: [Karr Michael](#); [REDACTED]; [CDR: Tommy Michael Stendel](#)
Subject: RE: Party technical review of survival factors group chairman's factual report
Date: Friday, February 9, 2018 3:13:02 PM
Attachments: [180131 NTSB Survival Factors DFR BF Comments.pdf](#)

Dear Adam

I made a review of documents sent to You and found in the Survival Factor I sent only 2 pages instead of 4

In the attachment please find the complete document

Kind regards

Ing. Gustavo Abaroa :: PDT y OCPM - DPA & CSO
DIRECCION GENERAL :: **BAJA FERRIES S.A. DE C.V.**
Ave. Emilio Barragán y Prolongación Carnaval s/n, Fracc. Playa Sur, Mazatlan, Sinaloa
tel. (669).982.5588
email. gustavo.abaroa@bajaferrries.com.mx:: <http://www.bajaferrries.com.mx>
:: Por favor considera el ambiente antes de imprimir este e-mail. [Recicla](#) | [Reduce](#) | [Reusa](#)

De: Gustavo Abaroa Galvez

Enviado el: jueves, 1 de febrero de 2018 05:06 p. m.

Para: Tucker Adam

CC: Karr Michael; Capelli, Michael J CDR; Tommy Michael Stendel

Asunto: RE: Party technical review of survival factors group chairman's factual report

Dear Adam

In the attachment please find our comments to Survival Factors Factual Report

Kind regards

Ing. Gustavo Abaroa :: PDT y OCPM - DPA & CSO
DIRECCION GENERAL :: **BAJA FERRIES S.A. DE C.V.**
Ave. Emilio Barragán y Prolongación Carnaval s/n, Fracc. Playa Sur, Mazatlan, Sinaloa
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email. gustavo.abaroa@bajaferrries.com.mx:: <http://www.bajaferrries.com.mx>
:: Por favor considera el ambiente antes de imprimir este e-mail. [Recicla](#) | [Reduce](#) | [Reusa](#)

De: Tucker Adam [<mailto:adam.tucker@ntsb.gov>]

Enviado el: miércoles, 17 de enero de 2018 02:55 p. m.

Para: [REDACTED]; CDR; Tommy Michael Stendel; Gustavo Abaroa Galvez

CC: Karr Michael

Asunto: Party technical review of survival factors group chairman's factual report

Party coordinators:

Attached is the **survival factors group chairman's draft factual report** for the fire and subsequent abandonment of the ro-ro passenger ship *Caribbean Fantasy* on August 17, 2016.

Kindly review the attached draft report for accuracy, and provide technical review and

comment. The deadline for submitting comments is **February 1, 2018**. If we do not have a reply by that date, with regard to your individual party, we will consider the report to be technically correct. The NTSB investigative team will review all comments to the factual report and provide the parties with a written summary of the disposition of those comments, including whether any changes have been or will be made to the report. Should you have no comments, please reply to me stating you have reviewed the factual report and have no comments.

In addition to commenting on the draft report, you may also indicate whether you think any additional investigation is needed to complete the factual record. Attached is a Word document template to assist in recording your remarks for the report. In addition, please review the attached draft factual report to identify any information you believe should properly be marked as trade secret or confidential commercial information for your company. Marking information as trade secret or confidential commercial information will trigger an additional review process prior to public release of the information. 49 U.S.C. § 1114(b)(1)(D).

The purpose of a technical review is to verify the accuracy and completeness of the factual information on which future analysis will be based. At this time, we invite factual comments only, **not analytical comments**. After the technical review is complete, you will have an opportunity to enter a party submission in which you may offer your analysis, including proposed conclusions, probable cause, and recommendations which will be due at a later date.

In addition to this report, you will also receive a report from the following groups within the next one to two weeks:

- Engineering
- Fire, explosions and fire protection/systems

Please remember that this draft report is for official use only until released in the public docket. NTSB regulations prohibit the release of investigative information that has not been released by the NTSB without prior consultation and approval of the investigator-in-charge. I will inform you as to the release date of the public docket. Also, due to the file size of this report, supplemental attachments will be sent to you each in separate e mails.

Feel free to contact me with any questions or comments you may have regarding this process.

Thank you,

Adam Tucker
Accident Investigator
National Transportation Safety Board
MS-10 Major Investigations

[REDACTED]

Mobile: [REDACTED]

Party Comments by email/letter dated: Jan 31st, 2018

NTSB Survival Factors Draft Factual Report for Technical Review

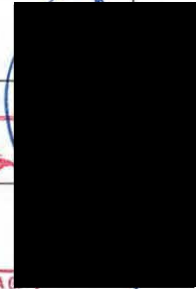
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ING. GUSTAVO ABAROA
PDT Y OCPM / DPA & CSO

Party Comments by email/letter dated: Jan 31st, 2018

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Technical Review of Draft Factual Reports: Baja Ferries, S.A. de C.V.

Party Comments by email/letter dated: Jan 31st, 2018

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| Eight failure module | Our comment: ... This seems to be conjecture and does not follow from the known facts. If the vessel was making way and the bowing lines were used, it is difficult to say or make the prediction that the slide could be used or would not buckle. | |
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