BOARD OF PILOT COMMISSIONERS
FOR THE BAYS OF
SAN FRANCISCO, SAN PABLO, AND SUISUN

INCIDENT REVIEW COMMITTEE
INVESTIGATION REPORT

REPORT OF THE DOCKING OF THE M/V KONA TRADER AT THE PORT OF STOCKTON, BERTH 12/13, ON SEPTEMBER 25, 2024
PILOT: CAPTAIN MATTHEW STEVENS

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I. INTRODUCTION

1. On the afternoon of September 25, 2024, the M/V KONA TRADER (hereinafter KONA TRADER) was transiting from Anchorage 9 to the Port of Stockton. The KONA TRADER is a 738-foot-long bulk carrier that was bound for the Port of Stockton. Captain Matthew Stevens was assigned as the pilot.

2. Captain Stevens boarded the ship at Anchorage 9 at approximately 0630 hours. Captain Stevens was accompanied by Board of Pilot Commissioners trainee pilot Captain Christian Barron. While Captain Stevens was introducing himself to the ship's master, Captain Hernando, he requested permission for Captain Barron to handle the vessel under his supervision, to which Captain Hernando agreed.

3. Following introductions, Captain Barron conducted a brief Master/Pilot information exchange, which included a review of the route[1], the information the ship shared on the Pilot Card, and whether there were any vessel deficiencies (none were noted). Captain Barron also informed the master of the UKC requirements, that they would clear the Union Pacific Railroad Bridge by "about two meters," that he should have a crewmember forward with the anchor ready for emergency, and that they would be "in harbor" at about 1445 hours.

4. The vessel departed Anchorage 9 at approximately 0700 hours. The transit upriver was anticipated to take approximately seven hours, and the plan included Captain Barron handling the vessel throughout the transit.

5. The transit upriver was without incident. Captain Stevens was impressed with Captain Barron's work during the transit, and he decided to allow Captain Barron to dock the ship as well. This decision was made based on Captain Barron's time in the training program (over 12 months) and from observing his work coming upriver.

6. As the ship approached the entrance to the Port of Stockton (1415 hours), Captain Barron again engaged the Master by discussing the tugboat arrangements, by instructing him that there will be three boats assisting, one on each bow and that the third tug will be made fast on the starboard quarter when the speed comes down. He added that when they come alongside the berth, they will let go the portside quarter tug and she will "slide out of the way." He also inquired of the Master if he had been to Stockton (Berth) 12.[2] That question was followed up by the following instruction

[1] This review of the route was very cursory and consisted of the pilot asking the master if he had been to Stockton before and if he was familiar with the route.
[2] On a review of the VDR recording, no verbal response to this question was heard, although there may have been a non-verbal response, such as a head nod.

to the Master: "As we approach the berth, if you can have the mate on the bow give distances, opening and closing."

7. At approximately 1435 hours, Captain Barron ordered two of the three tugs assigned to the job, to be made fast: The CLEO J. BRUSCO (hereinafter CLEO) on the port bow, and the PATRIOT on the starboard bow. The third tug, the SHARON BRUSCO (hereinafter SHARON), was standing by ready to put a line on the starboard quarter.

8. The maneuver called for the bow to approach the dock, then with a combination of tug assist and ship's engines, for the ship to rotate to port approximately 120 degrees and come alongside the pier. The turning basin at Berth 12/13 is a tight, trapezoidal pocket (See Figure 1, below), which means that the vessel's stern approaches the edge of the channel to the north, while the bow moves south into the pocket as it approaches the pier.

9. As the ship moved toward the dock (1519 hours) the CLEO, on the port bow, reported approximately 300 feet between the KONA TRADER's bow and "the loader,"

10. In order to visually confirm the vessel's position and verify the information provided by his PPU, Captain Stevens went to the port bridge wing to check the distances between the stern of the vessel and the edge of the charted channel. In his statement, Captain Stevens notes he saw more room astern of the KONA TRADER than indicated by his PPU, which meant that the vessel's bow was close to the berth. Captain Stevens also notes that neither he nor Captain Barron had received a distance report from the KONA TRADER crew member stationed on the bow at this point.

11. As Captain Stevens was returning into the wheelhouse, the master of the KONA TRADER reported (at 1521 hours) the Master relayed a report from the bow of "distance forward of four-zero."[3] The vessel speed at the time of that report was 1.5 knots over the ground. Less than a half-minute later, the Master relayed a report from the bow of "distance 20 meters."

12. Captain Stevens instructed Captain Barron to reverse the vessel. Captain Barron immediately complied, ordering dead slow astern on the engine and the PATRIOT to back half alongside for brakes. Quickly thereafter, Captain Barron ordered the engine slow astern and the CLEO to push half to increase the rotation on the bow. Subsequently, the PATRIOT was ordered back full alongside, and the engine was ordered half astern (1520 hours).

13. Following these maneuvers, the crew member on the bow reported, through the master, that the KONA TRADER had allided with the berth (1522 hours).

14. Captain Barron backed the ship away from the dock and shortly thereafter proceeded to moor the ship in Berth 12/13 without further incident.

15. The Port Agent notified the Executive Director of the incident by telephone the day it occurred. Subsequently, the Port Agent sent the Executive Director an email containing additional information about the incident.

[3] There as apparently an assumption that this reporting was in meters, but this information was not apparent from the VDR recording, although a later verbal report did identify the distance units being reported.

16. Captains Stevens and Barron underwent normal post-incident chemical testing.

17. The Incident Review Committee consists of Commission Vice President Joanne Hayes-White as Chairman and Executive Director Allen Garfinkle. The IRC prepared this report pursuant to California Harbors and Navigation Code Section 1180.3 and Title 7, California Code of Regulations Section 210.

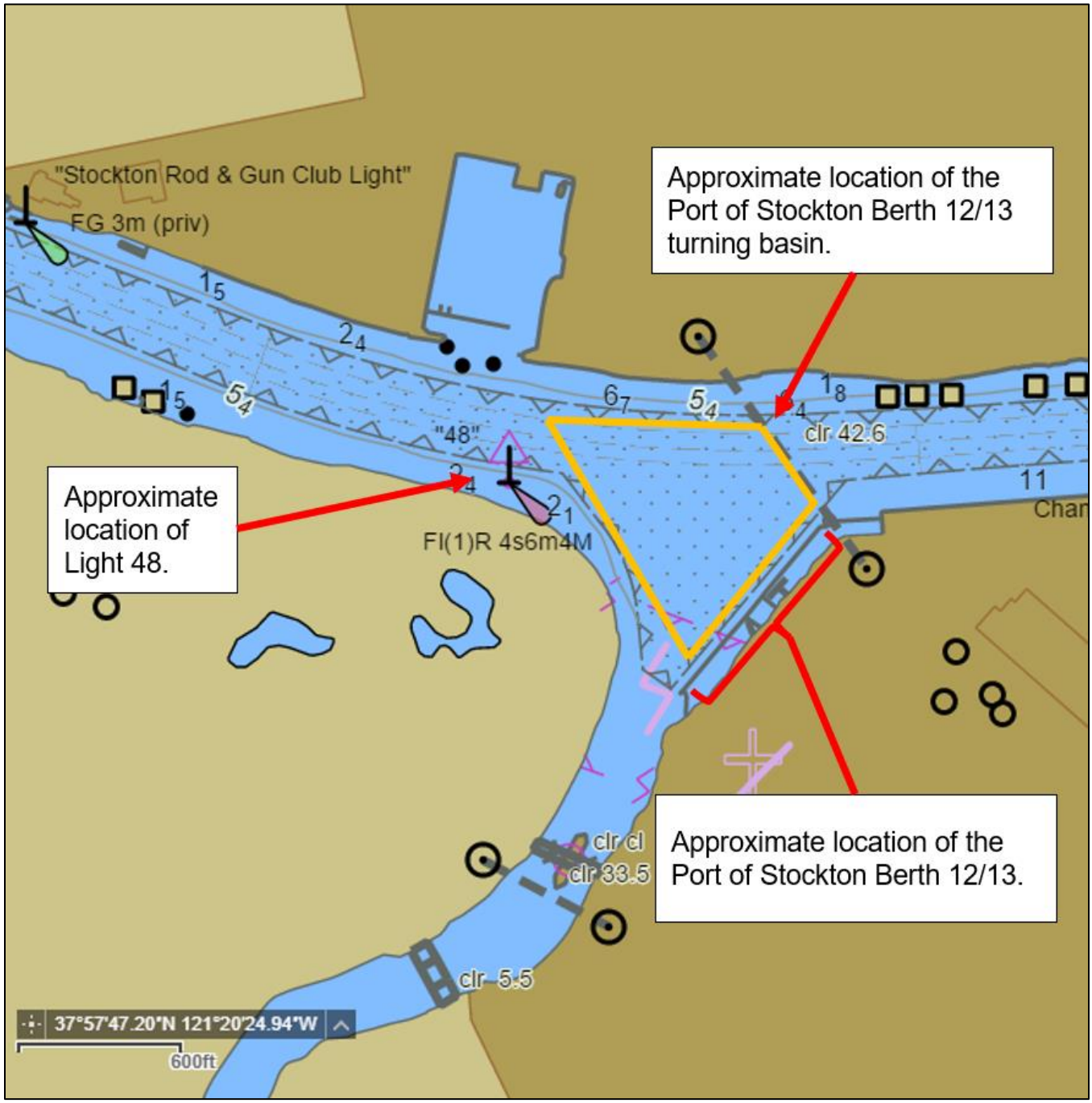

Figure 1. Port of Stockton Turning Basin with Approximate Annotations by the IRC. Chart Source: Office of Coast Survey, National Oceanic and Atmospheric Administration, U.S. Department of Commerce at https://www.nauticalcharts.noaa.gov/enconline/enconline.html.

II. TABLE OF ABBREVIATIONS

Abbreviations in the report refer to the following:

AIS	Automatic Identification System
ATB	Articulated Tug Barge
FOIA	Freedom of Information Act
IRC	Incident Review Committee
Lt.	Light
MISLE	Marine Information for Safety and Law Enforcement
PPU	Portable Pilot Unit
SFBP	San Francisco Bar Pilots
SOG	Speed Over Ground
UKC	Under Keel Clearance
USCG or **CG**	United States Coast Guard or Coast Guard
UTC	Coordinated Universal Time

III. FINDINGS OF FACTS

1. Vessel Identification and Description

KONA TRADER is a bulk carrier registered in Cyprus. It was built in 2007.

Vessel Particulars:

Length: 738 feet Beam: 105.8 feet
Gross Tonnage: 39,737 gross tons
Owner: Nefelia Shipping S.A., Marshall Islands
Management: Horizon Bulker S.A. Athens, Greece
Agent: Fillette Green Shipping Services, Houston, Texas

Figure 2. M/V Kona Trader, circa 2021.

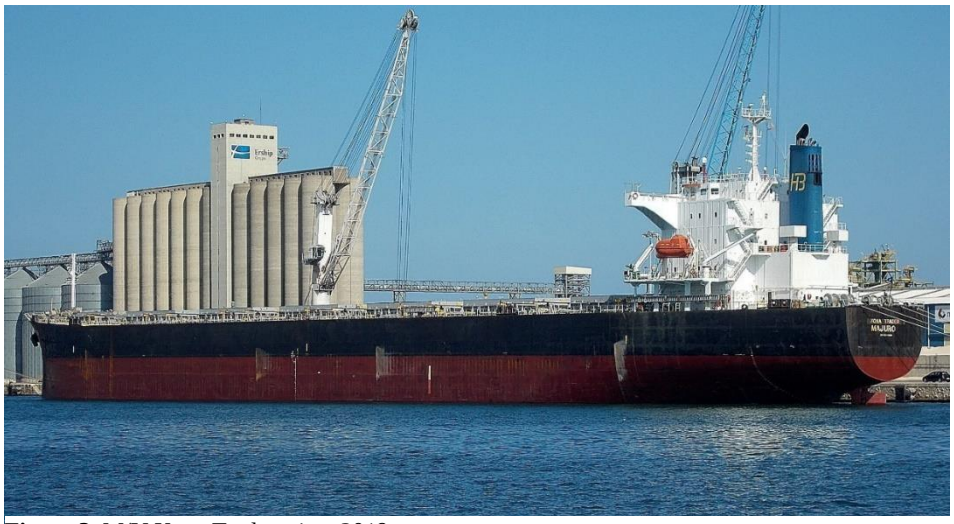

Figure 3. M/V Kona Trader, circa 2019.

1. Date of vessel movement

Date and Time: September 25, 2024, approximately 1524 hours
Location: Port of Stockton, Stockton, California

3. Identification of Pilot

San Francisco Bar Pilot: Captain Matthew Stevens

4. Weather and Sea Conditions

A. Weather Conditions

The weather conditions in Stockton at the time of the transit were as follows:

Wind: northwest, decreasing from 12 to 7 miles per hour
Visibility: good
Weather: clear and sunny

B. Tidal Information

Calculated under keel clearance at Port of Stockton, Berth 12/13:

- Controlling depth = 38' 00"
- Height of tide at 1500 = + 2 05"
- Depth at 1500 = 40' 05"
- Deep Draft (aft) 28' 02"
- UKC at docking (1500) 12’ 03"

5. Statement of the Pilot

a. Captain Stevens was well rested prior to piloting the KONA TRADER, having gotten a full night’s sleep the two nights prior.

b. Prior to boarding the vessel, Captain Stevens reviewed all of the information needed to conduct the vessel from Anchorage 9 to Stockton Berth 12/13, including tides, currents, traffic, and applicable guidelines.

c. After boarding the vessel, he introduced himself to the master. He requested and received the master’s permission for the trainee pilot, Captain Christian Barron, who was accompanying him to handle the vessel under his supervision. Captain Barron then conducted an extensive Master/Pilot information exchange wherein they reviewed the route, discussed the pilot card information and vessel deficiencies. No deficiencies were reported.

d. The KONA TRADER got underway for Stockton Berth 12/13 at approximately 0700 hours. The entire transit was estimated to take approximately seven hours with Captain Barron conning the vessel for the entire trip.

e. Captain Stevens observed Captain Barron throughout the transit. According to Captain Stevens, the Pilot Trainee demonstrated skill and professionalism.

f. During the transit, Captain Stevens also observed the KONA TRADER's bridge personnel whom he judged as competent, both in their handling of the vessel and in their responses to Captain Barron's orders.

g. Based on Captain Barron's performance during the transit, his more than 12 months of training, and prior experience as an ATB captain, Captain Stevens decided that Captain Barron should be allowed to dock the KONA TRADER.

h. At approximately 1416 hours, as the KONA TRADER was approaching the de facto entrance to the Port of Stockton known as the "west end." Captain Barron asked the master to position a crew member on the bow to provide distances to the dock. The master agreed.

i. At approximately 1435, Captain Barron asked to make fast two of the three assist tugs. The CLEO was made fast on the port bow; the PATRIOT was made fast on the starboard bow. The third tug, SHARON, was standing by ready to put a line on the starboard quarter.

j. Captain Stevens stated that he has certain speed goals when working in the Port of Stockton. These include slowing the vessel incrementally to maintain positive steering and minimize hydraulic interaction with other vessels. According to Captain Stevens, Captain Barron met these goals as the vessel approached the turning basin. For example, at 1500, the KONA TRADER passed a vessel docked at the Rough and Ready Island Berth 14 at a speed of 3.0 knots, assisted by the tugs PATRIOT and CLEO.

k. At 1506, Captain Stevens discussed safe speeds in the maneuvering area with Captain Barron. At 1509, Captain Stevens discussed testing the engine astern before entering the maneuvering area with Captain Barron.

l. At 15:18:50 hours, the tug CLEO reported that the vessel was 300 feet from the dock.

m. Captain Stevens noted that he subsequently moved to the port wing to visually confirm the vessel's position in the channel. From the port bridge wing, Captain Stevens realized that there was more room astern than he anticipated based on the information reported by his PPU, an indication that the vessel's bow was getting close to the dock.

n. Upon returning to the bridge, Captain Stevens noted that the master reported a distance to the dock of 40 meters (approximately 131 feet), which was the first report from the bow lookout. Simultaneously, the CLEO on the port bow reported a distance of 55 feet to the dock.

o. Captain Stevens instructed Captain Barron to reverse the vessel. Captain Barron immediately complied, ordering dead slow astern. The PATRIOT was ordered to back half alongside for braking. The CLEO was ordered to push half into the hull to increase the rotation of the bow to starboard (to clear the dock).

p. Following these orders, the master relayed a report of 20 meters (approximately 66 feet).

q. Subsequently, Captain Barron ordered the PATRIOT to back full alongside. Captain Barron ordered half astern on the engine, an order confirmed by the mate.

r. Following these orders, the master asked the bow lookout for the distance to the dock. The master reported that the vessel had touched the dock.

s. Captain Barron stopped the vessel's momentum and proceeded to complete the docking maneuver. The first line was at 1546.

t. In conclusion, Captain Stevens noted that he was not advised of any damage to the vessel. According to Captain Stevens, the damage to the dock appeared to be minor.

6. Relevant Statements of Witnesses

A. Captain Christian Barron, Board of Pilot Commissioners Trainee Pilot

a. Captain Barron was well rested prior to embarking the KONA TRADER at 0630. On September 23, 2025, two days prior to the incident, he did not work. On September 24, 2024, his duty shift began at 0630 and ended at 1636.

b. After embarkation, Captain Barron was introduced to the KONA TRADER's master and received permission to handle the vessel under supervision from the pilot, Captain Stevens.

c. Captain Barron noted that he performed the Master/Pilot Exchange. This included a review of the transit. The KONA TRADER was underway at 0706 hours.

d. The vessel entered the Port of Stockton at 1445 hours. At this point, the port transit was discussed with the master, including tug locations. Captain Barron noted that it was during this meeting that he asked for an officer to be stationed on the bow during the vessel's approach.

e. The tug PATRIOT was made fast to the starboard bow. The tug CLEO was made fast to the port bow. The tug SHARON was following at the starboard quarter, ready to make fast when the vessel's speed was slow enough for the tug to come alongside.

f. As the KONA TRADER approached Lt. 48, the vessel's speed was approximately 1.5 knots.

g. Distances were being relayed from the CLEO. The PATRIOT and SHARON were standing by to assist.

h. As the KONA TRADER approached the dock, the CLEO reported that the distance to the dock was 300 feet. The tug was ordered to take in her line, but standby to assist to starboard.

i. Captain Barron noted that the officer on bow was reporting distances in a foreign language, which was translated by the master for the Captains Stevens and Barron.

j. Prior to the allision, Captain Barron noted that the last distance reported from the officer on the bow was 40 meters (approximately 131 feet). Simultaneously, the CLEO reported a distance to the dock of 55 feet.

k. Captain Stevens ordered Captain Barron to stop the ship. Shortly afterwards this order, the master reported that KONA TRADER had contacted the dock.

B. Captain Laury Hernando, Master of the KONA TRADER (Name redacted by USCG; based on an interview summary provided by the USCG incident investigator.)

a. The master of the KONA TRADER contacted the USCG by telephone after receiving an emailed request for a copy of form CG-2692. The USCG's summary noted that the vessel's agent was also on the conference call due to language barriers.

b. The master noted that two pilots were onboard. Captain Stevens was the senior pilot. Captain Barron was directing the movements of the tugs.

c. The master stated that: 1) the turn to starboard was too late and 2) the vessel had too much forward momentum. He estimated the vessel's speed at the time of the incident was 1.5 knots.

d. The master noted that crew members on the bow radioed the bridge when the vessel's bow contacted the pier.

e. The master stated that the vessel notified the terminal of the damage and emailed the company to request "class attendance."[4] He provided a copy of the class report to the USCG the following day.

C. Officer Mack, Port of Stockton Police Department

a. On September 25, 2024, Officer Mack was parked in the vicinity of Berth 12/13, facing the dock in a northwesterly direction. Another officer, Sgt. Williams, was also present.

b. At approximately 1522 hours, Officer Mack exited her vehicle after noticing that the KONA TRADER's bulbous bow was unusually close to the dock.

c. At approximately 1523 hours, Officer Mack noticed that the vessel appeared to have a southeasterly heading as it was attempting to turn to the south. Subsequently, the vessel's bulbous bow went under the dock and collided with the structures supporting the dock.

d. Immediately following the incident, the bulbous bow emerged from under the dock and the KONA TRADER came to a stop. Officer Mack noted that a large cloud of smoke appeared to come from the bulbous bow area at the time of the collision.

e. Officer Mack noted that her colleague, Sgt. Williams notified their dispatcher (Control 1) that the incident had occurred.

[4] In the context of marine shipping, "class attendance" refers to a vessel's adherence to the standards and requirements set by a classification society, independent organizations that establish and maintain technical standards for the construction and operation of ships (and other maritime structures).

f. Officer Mack moved to the dock to assess the damage and take photographs. In her report, Officer Williams noted that the damage caused by the KONA TRADER included a dented metal pier under the dock and lifted and cracked concrete.

g. Facilities, maintenance, and construction personnel from the Port of Stockton were also present on the dock and located a sheared bolt. Longshoremen on the dock were cautioned by the facilities, maintenance, and construction personnel about using a forklift in the area of the incident. The Port Engineer was advised that an incident had occurred.

h. Finally, Officer Mack noted that several other members of the Port of Stockton Police Department were on the scene. The video of the incident captured by the Port of Stockton's camera was saved to the Police Department's server.

7. Nature and Extent of Injuries

There were no injuries to persons in this event.

8. Estimate of Damages

A. Damage to Berth 12/13, Port of Stockton

a. At 1633 hours on September 25, 2024, Mr. Jared Wilkey, Manager of Marine Operations at the Port of Stockton, sent an email to Fillette Green Shipping Services**,** the KONA TRADER's agent. This email placed the ship on notice for all costs associated with any delays as well as the damages to the dock.

b. On September 26, 2024, an employee of the Port of Stockton responsible for facilities, maintenance, and construction opined in a report to the Port of Stockton Police Department that the repair costs would be approximately $500,000.

c. In the USCG's MISLE Incident Investigation Report, the initial damage was estimated to be $50,000. Subsequently, after consulting an engineer, the Port of Stockton reported damages in excess of $75,000 to USCG. It is unclear if the Port of Stockton employee in the Port of Stockton Police Department report and the engineer mentioned in the USCG report are the same individual or separate persons.

d. Despite repeated requests from the USCG, the Port of Stockton failed to provide a concrete damage estimate or list of repairs. As a result, the damage estimate of $75,000 was used in the USCG's report.

e. Subsequent information from the Port of Stockton placed the damage estimate at closer to $1.5 million.

B. Damage to the Vessel

a. On September 26, 2024, a representative of the Bureau Veritas surveyed the vessel. This survey included a visual examination of the external tanks and the internal forepeak tank.

b. There were no apparent signs of buckling, penetrations, indentations, or any other structure damage. The surveyor reported no loss to the vessel's critical components.

9. Names of Witnesses

The written statements of witnesses included are as follows:

1.	Captain Matthew Stevens	Pilot of the KONA TRADER
2.	Captain Christian Barron	Board of Pilot Commissioners Trainee Pilot
3.	Captain Laury Hernando	Captain of the KONA TRADER
4.	Officer Deborah Mack	Port of Stockton Police Department
5.	Captain Matt Barrett	Operator of the PATRIOT
6.	Captain Blaine C. Frost	Operator of the SHARON
7.	Captain William B. Nern	Operator of the CLEO

10. Relevant Records from United States Coast Guard

On October 1, 2024, a FOIA request was submitted to the USCG. The USCG's final response was received on December 2, 204. Included in the response were copies of the following documents:

- Video File #1: A copy of a video file showing an easterly view of the KONA TRADER approaching the Berth 12/13. This video is 5 minutes and 10 seconds in length.

- Video File #2: A copy of a video file showing a westerly view of the KONA TRADER approaching Berth 12/13. This video is 9 minutes and 32 seconds in length.

- Coast Guard Report 2692: A copy of the "Report of Marine Casualty Form CG-2692."

- Company Email #1: A copy of an email from the KONA TRADER's management company, Horizon Bulkers S.A., to Fillette Green Shipping Services, requesting as assessment of damages.

- Company Email #2: A copy of an email from the KONA TRADER's management company, Horizon Bulkers S.A., to the Captain of the KONA TRADER notifying him of action that they have taken in response to the accident (e.g., request for damage assessment by agent). The email also asks the KONA TRADER's Captain to take photographs (internal and external) of the part of the hull that contacted the dock.

- Company Email #3: A copy of an email from the Manager, Maritime Operations at the Port of Stockton to the KONA TRADER's agent, Fillette Green Shipping Services, notifying the agent of the allision. The Operations Manager for Fillette Green Shipping Services forwarded to message to Horizon Bulkers S.A.

- Interview Summary #1: A summary of the interview that the USCG conducted with the Captain of the KONA TRADER.

- Interview Summary #2: A summary of the interview that the USCG conducted with Captain Barron.

- Audio File: A copy of an audio file containing radio communications between the bridge of the KONA TRADER and the assist tugs. This audio recording is 18 minutes and 11 seconds in length.

- Marine Exchange AIS Tracking: Copies of the KONA TRADER's AIS data, showing its approach to the Port of Stockton at the following times: 1517, 1519, 15:20:30, 1522 (estimated time of allision), and 1524. The AIS data includes the speed of the KONA TRADER as well as the positions of the assisting tugs.

- Photographs #1: Copies of ten photographs showing various views of the dock and the KONA TRADER. Images provided the vessel's agent.

- Photographs #2: Copies of six photographs showing various views of the dock and the KONA TRADER. Images provided the Port of Stockton.

- Bureau Veritas Report: A copy Bureau Veritas' survey report on the condition of the KONA TRADER. The surveyor found no apparent signs of bulking, penetrations, indentations, or any other structural damage. The surveyor also found that there was no loss of any of the vessel's critical components.

- VDR Timeline and Diagram: VDR data for the period 15:17:42 hours through 15:29:20 hours (N.B. that the timeline in the report is presented in UTC; however, this corresponds to the correct local time). Also included is a Tug Arrangement Diagram.

- VDR Timeline excerpts: VDR transcript of relevant communications on bridge from 06:24 hours through 15:22:12 hours.

- Captain Stevens' Statement: A copy of Captain Stevens' statement.

- USCG MISLE Report: The USCG's MISLE report. This report includes the UCCG's findings and conclusion.

11. Pilot Licensee Background Information

a. Captain Stevens was first licensed as a pilot in January 2021.

b. In August 2019, as a trainee pilot, Captain Stevens was involved in a docking incident involving the M/V Washington at Valero (BNC4).

IV. ANALYSIS AND CONCLUSIONS BY THE IRC

Jurisdiction

The Legislature has delegated authority to the Board to establish an incident review committee to review all reports of misconduct or navigational incidents involving pilots or other such matters for which a license issued by the board may be revoked or suspended. The Harbors and Navigation Code §1181 defines misconduct, in part, as (g) negligently, ignorantly, or willfully running a vessel on shore, or otherwise rendering it liable to damage, or otherwise causing injury to persons or damage to property. After reviewing the evidence and ruling out ignorance or willfulness as the cause of any damage in this event, the IRC has limited its analysis and conclusion to a consideration of negligence.

Standard of Care

The negligence standard of care calls for an evaluation of whether a particular pilot exercised that degree of care and skill possessed by "the average pilot." He must exercise the degree of skill commonly possessed by others in the same employment, and although he is not liable for mere errors in judgment, he is liable for damage caused by his failure to exercise the diligence which other pilots similarly situated would ordinarily have exercised. This is a fairly high standard of care one would expect of an expert, such as a maritime pilot.

Analysis

In this analysis we will attempt to apply the evidence to industry accepted analytical frameworks to aid in establishing a standard of conduct to compare to the conduct of the pilot. We will examine, in more detail, the following areas: situational awareness, bridge resource management, and fatigue. As we consider these areas, we must acknowledge the additional element present in this event, which is the interaction between the licensed pilot and the trainee. As we examine each element individually, it is important to keep in mind, that in practice, these areas overlap significantly.

In this event we have the situation where a Board trainee, Captain Barron, is being allowed by the licensee to handle the ship. While it is the licensee whose actions are being examined, we must be mindful of how pilot training is achieved in our jurisdiction and the burden it places on the licensee to participate in our program. As we conduct this analysis, we will refer to the actions of Captain Stevens, with the knowledge that he was both attempting to train Captain Barron and oversee Captain Barron's decisions with respect to appropriateness, but also with the knowledge that it is Captain Barron conning the vessel.

The licensees of the Board play a critical role in the training of pilots, and, as in this case, put their licenses at risk by allowing the trainees to handle ships under their license, to gain the experience necessary to successfully complete the training program. While the Board has every reason to expect licensees engaged in this training will maintain a full awareness of the actions of the trainee and will intervene, when necessary, when analyzing the evidence, one should also be mindful of the additional layer of interaction between the licensee and the bridge resources.

Finally, we must remain mindful that we have the benefit of hindsight to parse an event into discreet moments in time where the mariner is faced with a particular decision and judge the behavior and whether it was correct, knowing full well the result. It is a whole different matter to make those decisions in real time.

Damage claims

There appears to be ample evidence and no dispute that Berth 12/13 was damaged to some degree when the bulbous bow of the KONA TRADER made unintended contact with it during the docking evolution on September 25, 2024.

There were several witnesses to the unintended contact as well as video and audio recordings. The crew member stationed on the bow reported the contact to the master of the KONA TRADER by radio. Officer Deborah Mack of the Port of Stockton Police Department was on the scene when the allision occurred and witnessed the vessel's bulbous bow "go under" the dock. In addition, two videos, one with an easterly view and another with a westerly view, recorded the incident. While these videos do not include images of the moment of contact, they do show the vessel approaching the dock and the response and actions of the assisting tugs before and after the unintended contact. Orders from the bridge of the KONA TRADER to the assisting tugs are contained in an audio recording.

An inspection by Officer Mack and facilities, maintenance, and construction personnel from the Port of Stockton revealed cracked and lifted cement and dented metal. A sheared bolt was also found on the surface of the dock. At the time of this writing, the cost of repairs was estimated to be approaching 1.5 million dollars.

All of the available evidence indicates that there was contact was between the bulbous bow and the steel horizontal girders and piers underneath the dock. There is no evidence that the sides or stern of the vessel contacted the pier in any way. It appears then the damage to Berth 12/13 was the result of the forward momentum of the vessel.

Mooring of the KONA TRADER

As the KONA TRADER approached the Port of Stockton, the PATRIOT was made fast to the starboard bow, the CLEO was made fast to the port bow. The SHARON was instructed to follow alongside on the starboard quarter with no line made fast until it was safe to do so. The SHARON was made fast between the Berth 14 and Lt. 48.

As Figure 1 illustrates, the turning basin at Berth 12/13 is very tight. When turning vessels as large at the KONA TRADER in this basin, the maneuvering is very restricted, so utmost caution and precision are required to avoid contact with the channel's edge or the dock. Incorrectly estimating one distance may result in grounding or damage to the propeller; miscalculating another might lead to unintended contact with the dock (as seen in this case).

As noted in Captain Stevens' statement, he recognized the significant challenges of this maneuver, identifying that the precise positioning of the KONA TRADER relative to Berth 12/13 as a priority. As his PPU indicated that the KONA TRADER was "close to the edge of the charted channel," Captain Stevens moved to the portside bridge wing to visually confirm the distances from the vessel's stern to the channel's edge. It appears from the evidence that it was around this time that the operator on the CLEO reported "300 feet" to the dock.[5]

[5] USCG Timeline places the communication at minute 15:18:56 LT.

Following his visual inspection, Captain Stevens realized that there was more room astern of the vessel than indicated on his PPU, meaning that the distance between the bow and the dock was tight. Captain Stevens noted that, as of that moment they had not received any distance reports from the bow of the ship. As Captain Stevens returned into the wheelhouse, the Master reported "40 meters (approximately 130 feet)" from the bow.

Realizing that there may be a communication issue involving late or inaccurate distances, he immediately instructed Captain Barron to back the ship. Captain Barron did so, ordering dead slow astern on the engine and had the PATRIOT back half alongside. These actions were quickly followed by a slow astern order on the engines and an order to the CLEO to work half-power towards (away from the dock). Thirty-seven seconds later, the KONA TRADER's master reported that the distance between the bow and the dock was approximately 20 meters (approximately 65 feet). At this point, PATRIOT was ordered to back full. Less than 30 seconds later (the USCG's presumed time of allision), the KONA TRADER allided with the dock.

The evidence indicates that at the time of the first reported distance from the CLEO of 300 feet to the dock, given the ship's speed of advance of approximately 1.3 knots, allision would be imminent in approximately two and a half minutes. It is likely that Captain Stevens' actions of confirming this report visually from the bridge wing led to some delay in issuing orders to slow the ship, which he did immediately after returning to the interior of the wheelhouse. Captain Stevens instructed Captain Barron to back the KONA TRADER's engines.[6] Captain Barron immediately complied, attempting to use the vessel's engine and the assisting tugs to maneuver the vessel away from the dock.

Failure to immediately act on the first distance provided by the CLEO appears to have been a significant causal factor in this allision. Several issues may have contributed to this hesitation: The concern of Captain Stevens to make sure the stern (and propeller) was clear prior to initiating an astern bell, accompanied by his desire to visually confirm the distance report from the tug; and the hesitancy of the trainee to act on the information independently, perhaps knowing that Captain Stevens was checking on the clearance astern.

In addition to some hesitancy to slow the vessel, it appears that the turn to starboard was not completed, exposing the bow (and the dock) to damage. Had the clockwise rotation of the ship been carried further, it is possible that, despite the momentum of the vessel, contact with the dock may have been avoided.

When completing a complex maneuver such as berthing a vessel, a pilot must depend on a variety of tools to safely achieve his goal. These tools include the ship's engine and rudder—coordinated through a verbal chain of command that may encounter language barriers—as well as assistance from tugs contacted via radio, and continuous feedback from both people and instruments regarding the maneuver's progress and position. In this incident, Captains Stevens and Barron relied on distance reports from two sources: the crew member at the bow, as communicated through the ship's master, and the operator of the CLEO. The quality, consistency, and timeliness of these distance reports—especially those from the bow—appear to have been a significant factor in the outcome we are examining.

[6] According the USCG's VDR Timeline transcript, the first report from the crew member on the bow was received at 15:20:50; the second report was received at 15:21:27; the report which indicated that an allision had occurred was received at 15:21:52. The elapsed time between the first report and the second is 37 seconds; the time between the second report and the allision is 25 seconds.

Regarding communication issues, Captain Barron notes in his statement that the distance reports from the crew member on the bow were communicated in a foreign language. Consequently, the master had to translate this information for the pilots, which may have delayed their ability to act on it, albeit only momentarily. Furthermore, both entities that were being relied upon for accurate distance reports (Tug CLEO and the officer on the bow) were temporarily distracted from that critical task by the need to let go the CLEO's line.

Experience enhanced by training can assist the pilot in evaluating the effectiveness of any of these tools on a real time basis and adjust his behavior in any given situation accordingly. In some situations, the physical constraints of the harbor are tight, and the time available to assess the effectiveness of the resources compressed, which may result in judgments rendered on incomplete information, and actions based on some necessary assumptions to fill the gaps.

It is sometimes helpful, when establishing if conduct is reasonable, to look at the foreseeability that a particular event will take place. As applied to this event, was it foreseeable that two sources of information as to how far off the dock the bow was would fail to provide accurate information? We conclude that it was foreseeable and that reliance on these two sources was misplaced, given the lack of emphasis in preparing these resources, the language barriers, and the ancillary duties assigned to them.

Situational Awareness

Probably the single most important contributory cause to all poor decisions, collisions, and groundings is a loss of situational awareness.[7] Situational awareness is a concept that encompasses the broader topics of decision-making and behavior.

Situational awareness generally is comprised of five elements: temporal, system, environmental, geographical, and tactical. The evidence in this event leads us to examine the pilot's situational awareness in each of these areas.

The temporal element of situational awareness refers to factors such as speed through the water and over the ground, and estimated times at specific critical points in the voyage.[8] System situational awareness refers to full knowledge of the current status and operations of all critical systems on board and what their status might be at any particular moment.[9] Geographical situational awareness refers to maintaining awareness of a vessel's position in relation to other firmly fixed features, such as piers or moored ships.[10] Environmental situational awareness refers to meteorological or natural factors, such as the glare of the sun, and finally, tactical situational awareness refers to one's awareness of the capabilities of the ship under the current conditions but also in the event of failure.[11] As we examine this event, we will focus on temporal, situational, and geographical, situational awareness.

It appears there was a temporal loss of situational awareness based on the angle of the ship toward the pier, which did not allow for any contingencies such as a failure of the astern propulsion, as well as the speed over ground of 1.4 knots as the ship approached the berth. We should also consider that what

[7] Crowch, Timothy, *Navigating the Human Element,* pg.96
[8] Ibid, pg. 96
[9] Ibid, pg. 96.
[10] Ibid, pg. 96
[11] Ibid, pg. 96

appears to be a loss of temporal situational awareness by Captain Barron as the ship approached the berth may be the manifestation of uncertainty on the part of the trainee in the trainee/licensee relationship.

There was a loss of system situational awareness by Captain Barron evidenced by his repeating the slow astern command when the ship was already show astern, based on his earlier order.

It also appears that there was a loss of geographical situational awareness evidenced by the lack of knowledge of the distance of the bow from the pier, and the stern from the northern bank. While having this knowledge was dependent on other resources[12], not taking every precaution to assure that one has this information, through intentional and deliberate preparation, leaves them lacking geographical situational awareness.

Bridge Resource Management

Bridge Resource Management (BRM) generally refers to practices employed in the management of bridge operations to maximize the effective utilization of all resources, including personnel, equipment and information available for the safe navigation of the ship. The essence of BRM is a safety attitude and management approach that facilitates communication, cooperation, and coordination among the individuals involved in a ship's navigation.[13]

Bridge Resource Management was developed initially in the aircraft industry, starting in 1977, and was called "Cockpit Resource Management" in response to research of airline accidents showing that approximately 60% of the accidents in airline flight operations were caused by cockpit management errors and that further analysis revealed that errors were caused by improper attitudes rather than lack of skills. In the early 1990's the concept of applying Bridge Resource Management to the shipping industry was proposed and by the late 1990's the concept and practice was so widely accepted it was codified in the Code of Federal Regulations[14]. By 2007, 26 maritime academies and training centers worldwide were providing Bridge Resource Management training.

The goal of such systems is to ensure that there are adequate safety defenses in place, first to avoid errors, and second to trap and manage errors when they cannot be avoided.[15] The pilot, because of their leadership role on the bridge of a ship, must create and foster an environment which empowers and enables others on the bridge to provide information critical to avoiding errors.

The objectives of Bridge Resource Management are to share a common view of the intended passage and the agreed procedures to transit the passage with all members of the bridge team, to develop and use a detailed passage plan to anticipate and manage workload demands and tasks, to set appropriate manning levels and make contingency plans based on anticipated workload and risks, to make roles and responsibilities clear to bridge team members, to involve all team members in problem solving, to acquire all relevant information early and anticipate dangerous situations, and finally, that team members clearly understand the chain of command, including the way decisions and instructions are made, responded to, and challenged.

[12] Examined more closely under the topic of Bridge Resource Management.
[13] "Guidelines For Bridge Resource Management Courses For Marine Pilots", American Pilots 'Association, October 5, 1993
[14] CFR Title 33, Chapter 1, Subchapter O, Part 157.415(a)
[15] Grech, Horberry, Koestar, *Human Factors in the Maritime Doman, CRC Press, 2008, pg.143*

A crucial element to the success of sharing a mental model of the transit is for the pilot to fully communicate all elements of his transit plan. He "must be open in his communication to the Master and to the Bridge team and explain all that he intends doing while he has the con." With the pilot aboard, there is "now an additional mental model on the bridge and the pilot's mental model is crucial." [16]

To examine the evidence at hand through the bridge resource management lens, we draw on specific stated goals or objectives embodied in the concept. The overarching goal is to "ensure that there are adequate safety defenses in place, first to avoid errors, and second to trap and manage errors when they cannot be avoided."

BRM starts the moment the pilot sets foot on the bridge, typically with the Master/Pilot conference. This process can be enhanced using a checklist, or, in some cases, a printed handout created specifically to enhance the process, such as the "Pilot-Master Exchange Card" published by the San Francisco Bar Pilots. The goals of this exchange are stated on the front of the handout: "We believe that the Master-Pilot Information Exchange plays an important role in linking your vessel's navigational resources to those of the pilot. The exchange enhances the level of trust, sets transit expectations, and eliminates 'assumptions' that either the Master or the Pilot is aware of a certain fact or situation. By taking the time to give each other the necessary information, the safety of our transit will be enhanced."

Based on a review of the VDR, the Master-Pilot exchange that took place was quite abbreviated, and consisted only of the pilot inquiring whether the engines had been tested, how many anchor shackles were out, whether the Master had been to Stockton (and on the river) on a prior occasion, the instruction to the Master to have a crew member forward on the anchor for emergency, and the anticipated clearance on the Union Pacific Railroad Bridge.

There is a tendency of pilots to work independent of the bridge team, particularly where there is a language barrier. Here there was very little sharing of passage information, or information about the passage and berthing plan. This may have contributed to the lack of relevant information during the docking maneuver.

Another goal of BRM is to set appropriate staffing levels and make contingency plans based on anticipated workload and risks. Setting appropriate staffing levels in this event may have included requesting additional personnel on the bow, such as a dedicated lookout with no other duties. Contingency planning might have included making sure there is a safe runway should there be a failure of astern propulsion at a critical time.

Contingency planning is a component of the decision-making process. Decision making crosses over between Bridge Resource Management and Situational Awareness. Decision making on the bridge of a ship is pressured and dynamic where the primary consideration is maintaining control. This process involves more short-to-medium-term assessments and adjustments and differs from other decision-making situations where optimum or even perfect longer-term solutions are sought, for example, in design, engineering and construction.

Decision-making and situational awareness are a continuous process of updating your perception of the events around you – the building of a picture, understanding it, and projecting it. True situational awareness demands that your thinking "keep ahead of the vessel." The reason for this is to allow one more

[16] Crowch, Timothy, *Navigating the Human Element*, 2013, MLB Publishing, pg.116

time to consider the question "What if something were to happen now, how would I respond? What options do I have?"[17]

In this event, not completing the turn to starboard to bring the ship parallel to the dock, evidenced a failure of contingency planning, as in the event of a loss of propulsion or even a reduction in propulsion, it left bridge team with no alternatives. Here, there wasn't a loss of propulsion, but rather a lack of information, leading to the late employment of astern propulsion. Contributing to the loss of rotation to starboard, which may have eliminated or ameliorated the damage to the dock, was the choice by the pilot to back off on the portside tug from full ahead into the hull (moving the bow to starboard) to half ahead, and shortly thereafter to "stop and hold." There also appears to generally be a tendency to want to drive the ship into the berth, positioning the bow and then moving the stern into place (as opposed to placing the ship parallel to the pier and bodily moving the ship into the berth). While this type of maneuver is expedient, it limits options in the event of a failure.

In difficult and constantly evolving situations, we normally feel that we never have enough time. A reason for this perception is that, at the onset of an incident or challenging situation, the sense that we lose immediately is an accurate understanding of the passage of time. Hence, to prepare for any such eventuality, it is essential that all crewmembers involved in a task constantly share and update each other on their respective mental models.[18] As uncomfortable as it may be for some pilots, who are used to acting autonomously, verbalizing their thought processes may aid in engaging and empowering other bridge team members. Another way to compensate for this time-pressure is to slow the ship down, allowing for more reasoned decision-making and allowing for the ship's bridge team to recognize issues and intervene.

In this event, a more intentional and deliberate engagement of the officer on the bow, instilling with him the importance of his timely communication, might have resulted in them providing critical distance off data. Due to the language barrier that existed, a deliberate engagement with the Master beforehand might have been helpful. Instead, the instruction to the Master was simply "As we approach the berth, if you can have the mate on the bow give distances, opening and closing." As the pilot, by his own admission, was relying on this information to determine the timing of the astern bell, this instruction appears to lack the gravity and depth commensurate with the weight placed upon it.

Further eroding the loss of this critical information source, was the single officer on the bow was also responsible for letting go the tug, requiring his attention to be divided between providing distances forward and supervising the letting go of the tug. This act simultaneously removed both the tug and the mate on the bow from the task of informing the pilot of the distance forward.

Fatigue

While an examination of fatigue does not aid us in developing a standard by which to measure the actions of the pilot, it may be an underlying explanation for the loss of situational awareness and full use of bridge resources. Some of the other factors that may contribute to this loss, such as substance abuse or underlying medical issues, have been eliminated.[19]

[17] Crowch, Timothy, *Navigating the Human Element,* 2013, MLB Publishing, pg.191
[18] Ibid, pg. 194
[19] Substance abuse was eliminated as a factor by post-incident chemical testing.

Quoting from the *San Francisco Bar Pilot Fatigue Study (Fatigue Study):* "The work of San Francisco Bar Pilots involves an unusual mix of activities and job demands. Their work calls for situational awareness, reasoning, communication, and perceptual abilities comparable to those required by airline pilots and air traffic controllers. Errors can have severe consequences for public safety and the environment, as well as significant financial costs. As vessels become larger, the margin for error reduces, while the potential consequences increase."[20]

In *Navigating the Human Element,* Timothy Crowch notes the significant impact of fatigue on human performance: "The greatest effects, however, are on our mental processing, which then progresses into behavioral changes and deterioration in perception, situational awareness, communication, poor decision-making and ineffective leadership."[21]

The *Fatigue Study* also cites as signs of Fatigue-Related Performance Impairment an inability to concentrate, diminished decision-making ability, and slow response. The symptoms of inability to concentrate may express as being less vigilant than usual or being unable to organize a series of activities. Some symptoms of diminished decision-making ability might be misjudging distance, speed, time, etc., failing to appreciate the gravity of the situation, failing to anticipate danger, choosing risky options, and failure to observe and obey warning signs. Symptoms of slow response are when one responds slowly (if at all) to normal, abnormal, or emergency situations.

A review of Captain Stevens' 96-hour work-rest record shows that the night prior, he slept from 2100 hours to 0400 hours, a seven-hour period. Captain Barron's rest reporting shows him having a full night of rest available to him. Despite the evidence that both were well rested, we cannot rule out that fatigue may have played a role in this event.

The timing of this allision, at 1522 hours, while not in the typical circadian low (0200-0600 hours),[22] is unusually close to the "second, less pronounced period of increased fatigue and lowered performance typically occur(ing) at around 1500"[23] which calls into question the role of fatigue in this event. This secondary circadian low is "sometimes referred to as the 'post-lunch dip' however, it occurs even when no meal has been eaten."[24] We also know that the period of circadian low varies with individuals. "For an individual entrained to the light-dark cycle of their local environment, the circadian low will typically occur in the early hours of the morning. However, for individuals experiencing jet lag, or other forms of circadian misalignment the low may occur at other times, possibly during periods of daylight when performance decrements may not be typically experienced."[25]

The loss of situational awareness—evident in the failure to complete the turn to starboard, the repeated slow astern command, and excessive speed—combined with symptoms such as diminished decision-making, delayed response, misjudged distance and speed, failure to grasp the severity of the situation, lack of anticipation, and risk-prone choices, may all be indicators of the presence of fatigue.

It is challenging to make direct connections between events and fatigue, but we can infer a causal connection between the events and known symptoms of fatigue. For instance, when the loss of situational

[20] Hobbs, Flynn-Evans, *San Francisco Bar Pilot Fatigue Study,* 2018, pg. 73
[21] Crowch, Timothy, *Navigating the Human Element,* pg.167
[22] Hobbs, Flynn-Evans, *San Francisco Bar Pilot Fatigue Study,* 2018, pg. 4
[23] Hobbs, Flynn-Evans, *San Francisco Bar Pilot Fatigue Study,* 2018, pg. 5
[24] Hobbs, Flynn-Evans, *San Francisco Bar Pilot Fatigue Study,* 2018, pg. 5
[25] Hobbs, Flynn-Evans, *San Francisco Bar Pilot Fatigue Study,* 2018, pg. 5

awareness—evident in the decision to not complete the turn to starboard, the repetition of the slow astern command, and carrying too much speed—is compared to known symptoms such as diminished decision-making, slow response, misjudging distance and speed, failure to grasp the gravity of a situation, failure to anticipate danger, and risk-prone choices, the similarity of these items may all be evidence of fatigue.

In this event, it is possible that a combination of long periods of heavy concentration combined with the secondary circadian low of the day (approximately 1500 hours) made fatigue a contributory factor.

In an effort to determine whether a fatigue risk management strategy could be applied to this incident, the committee reviewed both the *San Francisco Bar Pilot Fatigue Study* and the *San Francisco Bar Pilots Fatigue Risk Management System (FRMS)*. Although Captain Stevens began his day at 0400 hours—placing his transportation to Pier 9 and from Pier 9 to the ship within the nighttime window (0000–0600)—his total duty time remained within the 12-hour limit. As such, the timing of the event very narrowly falls within the boundaries of a non-reportable work period—that is, a duty period that does not exceed 12 hours—as defined in the fatigue risk mitigation guidelines. Beyond the pilot's own self-monitoring for fatigue and the use of mitigating strategies such as reducing speed during the maneuver, the committee did not identify any additional fatigue-related risk-mitigation measures relevant to this incident.

Conclusion

The standard of care is whether the actions of the pilot were reasonable under the circumstances. In this case, Captains Stevens and Barron may have had a maneuvering plan to place the KONA TRADER alongside the pier, but critical elements of the plan were not shared with the Master or the bridge team. Captain Barron instructed the master to have the officer on the bow report distances forward upon entering the Port of Stockton but failed to impress upon the Master the importance of this information to the success of the planned maneuver. While executing the maneuver, the information that Captains Stevens and Barron were relying upon to successfully moor the ship, was insufficient, not delivered timely, and was confusing. This was, in part, due to the lack of a deliberate and intentional communication to the vessel and tug personnel of what the docking plan was and what was expected of them. Had the master been briefed on the docking plan, including the importance of timely and accurate reports from the bow, the errors encountered may have been eliminated or ameliorated.

It is worth noting that, in all cases of maneuvering a ship alongside a pier, ship handling is not a perfect science. The pilot (or pilot trainee) must translate his plan into verbal commands to others, who then control the machinery that results in action, the effectiveness of which the pilot must evaluate and respond to. In this instance, the actions of the pilots may have been delayed, in part by the interaction between the licensed pilot and the trainee. It is possible that Captain Barron was more hesitant to take action to slow the vessel while awaiting affirmation of his actions from Captain Stevens. It is also possible that fatigue played a part here. While Captain Stevens allowed Captain Barron to continue conning the ship to the berth (after nearly eight hours of concentration bring the ship up the river}, it may have been a missed opportunity to consider applying fatigue risk mitigation measures. This event illustrates the need for very active participation by the licensee when engaged in training and the need for extra caution to allow for the training communication to take place without adding additional risk to the maneuver.

As stated earlier when reviewing the standard of care, although a pilot is not liable for mere errors in judgment, he is liable for damage caused by his failure to exercise the diligence which other pilots similarly situated would ordinarily have exercised. In this event, while Captain Stevens' evaluation of the position the vessel and its forward momentum relative to the dock, may be considered an error in judgment

rather than negligent conduct, the loss of situational awareness, failures of effective bridge resource management, and lack of contingency planning evident in this event contribute to the conclusion that Captains Stevens and Barron failed to exercise the diligence which other pilots similarly situated would ordinarily have exercised.

V. IRC RECOMMENDATIONS TO THE BOARD

Based on the above analysis and conclusions the IRC recommends:

1. That the Board find for pilot error.

2. That Captains Stevens and Barron address the general membership of SFBP on lessons learned from this event, including fatigue risk mitigation, and report back to the Board when this presentation is completed.

3. That Captains Stevens and Barron attend additional BRM and Fatigue Risk Management training when next offered by the Board.

Date: April 24, 2025

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Joanne Hayes-White, Committee Chair Allen Garfinkle, Executive Director

List of Enclosures:

Attachment No.	Document Status	Description	Number of Pages
Attachment 1	Public	Initial Notice from Port Agent	1
Attachment 2	Public	Port of Stockton Chartlet	2
Attachment 3	Public	M/V KONA TRADER Stockton Approach – Marine Exchange AIS Data (Includes Annotated Images)	5
Attachment 4	Public	M/V KONA TRADER VDR Timeline (Times in UTC)	2
Attachment 5	Public	Port of Stockton, Photographs of Pier Damage	15
Attachment 6	Public	M/V KONA TRADER, Photographs of Vessel Damage	2
Attachment 7	Public	Bureau Veritas Vessel Survey	2
Attachment 8	Public	FOIA Request to USCG	5
Attachment 9	Public	Correspondence with M/V KONA TRADER's Agent	2
Attachment 10	Public	Various Correspondence from M/V KONA TRADER's Owner to Bureau Veritas, Vessel's Master, and Vessel's Agent	4
Attachment 11	Public	USCG Marine Casualty, Commercial Diving Casualty, or OCS-Related Casualty Report (Form CG-2692)	3
Attachment 12	Public	USCG Summary of Interview with Master of the M/V KONA TRADER	1
Attachment 13	Public	Tug Operators' Statements (Includes Statements from Masters of CLEO J. BRUSCO, SHARON BRUSCO, and PATRIOT)	3

Attachment 14	Public	USCG MISLE Investigation Report	22
Attachment 15	Public	Master-Pilot Information Exchange Card	2
Attachment 16	Public	VDR Transcript	14
Attachment 17	Confidential	Board Licensee Statement (to Executive Director and USCG), Duty Log, and Controlled Substances Testing Results	8
Attachment 18	Confidential	Board of Pilot Commissioners Trainee Pilot Statement (Board), Duty Log and Controlled Substances Testing Results	3
Attachment 19	Confidential	USCG Interview Summary with Master of the M/V KONA TRADER	2
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List of Exhibits:

Exhibit No.	Description
Exhibit 1	Incident Review Committee (IRC) Report
Exhibit 2	Port of Stockton Security Camera Video (Easterly View)
Exhibit 3	Port of Stockton Security Camera Video (Westerly View)
Exhibit 4	Radio Communications Playback